

## Supplementary Materials

# A Peptide Potential Based on a Bond Dipole Representation of Electrostatics

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This Supporting Information includes:

**Figure S1** Two clusters which contain one glycine tetrapeptide and 30 water molecules.

**Figure S2** 79 conformations used to derive the scale factors for intramolecular dipole-dipole interactions.

**Table S1** RMSEs of different methods with respect to the benchmark QM conformational energies.

**Figure S3** The linear correlations between the QM conformational energies and the force field ones for all the structures included in Table S1.

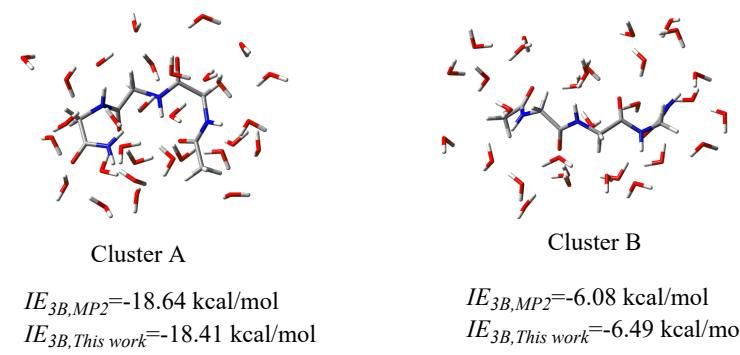
**Table S2** Bond stretching, angle bending and dihedral angle parameters used in our potential.

**Table S3** The backbone dihedral angles and hydrogen bond lengths for polypeptides AcAla<sub>4</sub>XAla<sub>4</sub>NHMe (X=Val, Ile, Leu, Asn, Gln, Ser, Thr, Phe, Cys, Met, Hid, Hie, Trp and Tyr), AcAla<sub>13</sub>NH<sub>2</sub> and Ac(Ala<sub>2</sub>GlnAla<sub>2</sub>)<sub>3</sub>NH<sub>2</sub>.

**Figure S4** The hydrogen-bonded dimers.

**Table S4** Physical components of the interaction energy (*IE*) for eight hydrogen-bonded dimers.

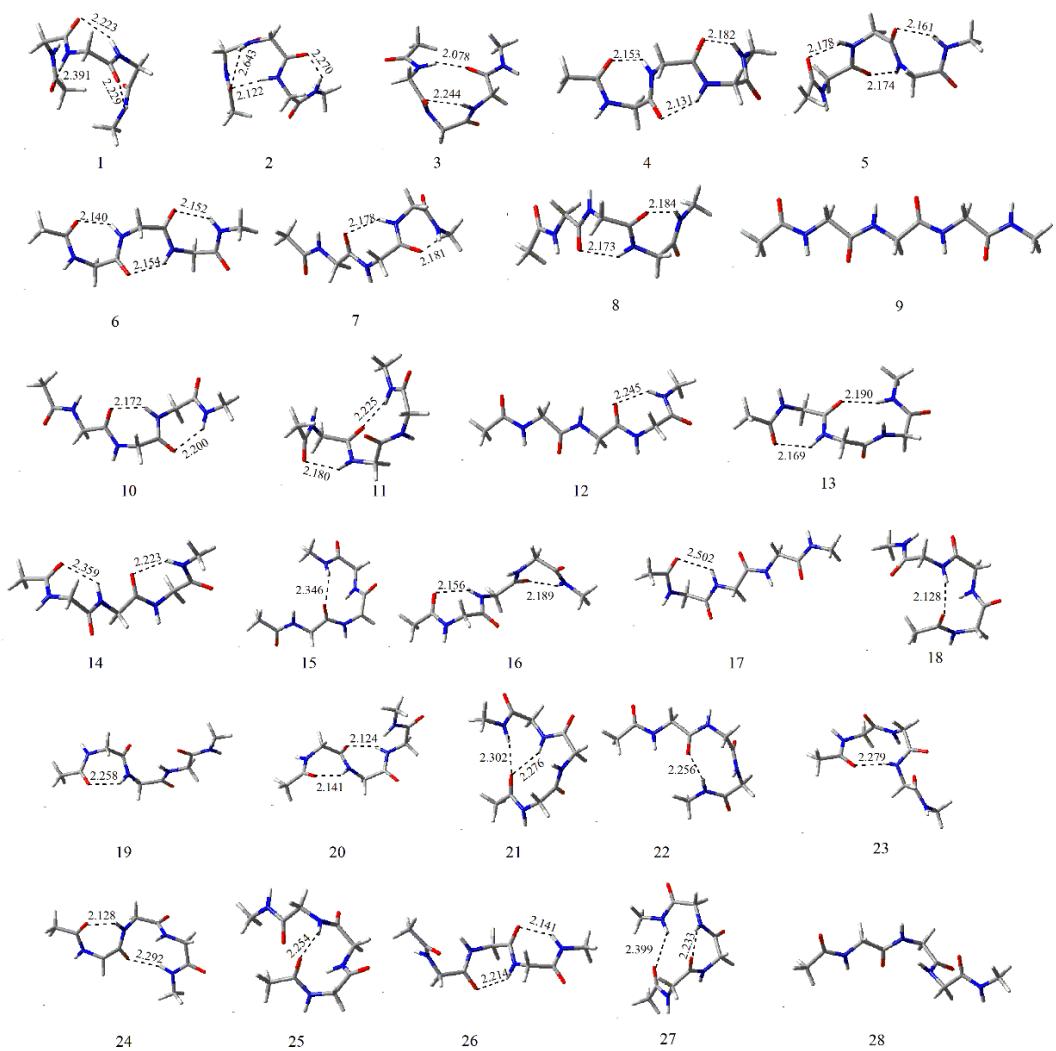
**Table S5** Cartesian coordinates in angstroms for Cluster A and B, 28 glycine tetrapeptide conformers, 51 alanine tetrapeptide conformers, AcAla<sub>4</sub>XAla<sub>4</sub>NHMe (X=Val, Ile, Leu, Asn, Gln, Ser, Thr, Phe, Cys, Met, Hid, Hie, Trp and Tyr), AcAla<sub>13</sub>NH<sub>2</sub>, Ac(Ala<sub>2</sub>GlnAla<sub>2</sub>)<sub>3</sub>NH<sub>2</sub> and hydrogen-bonded dimers.



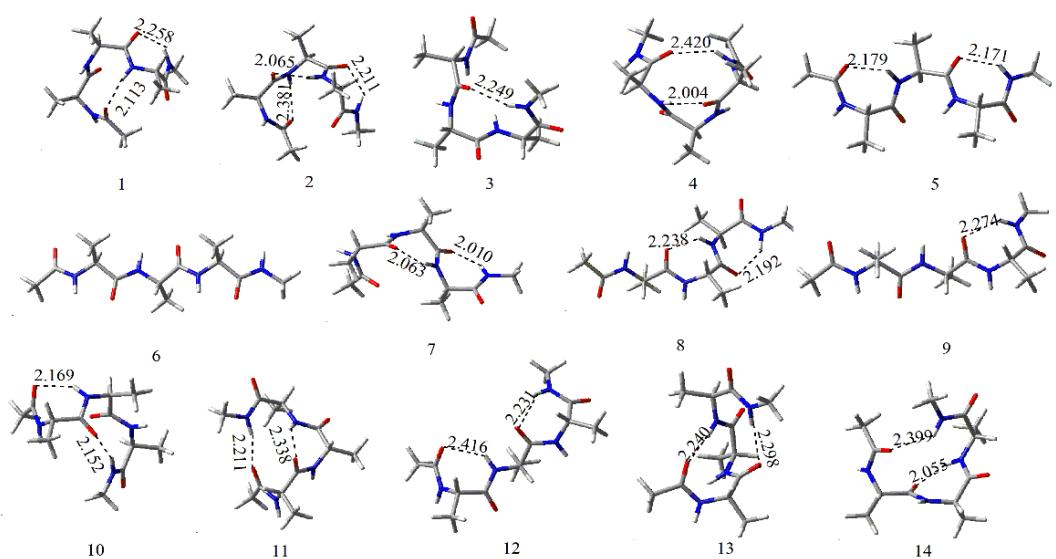
**Figure S1.** Two clusters which contain one glycine tetrapeptide and 30 water molecules.

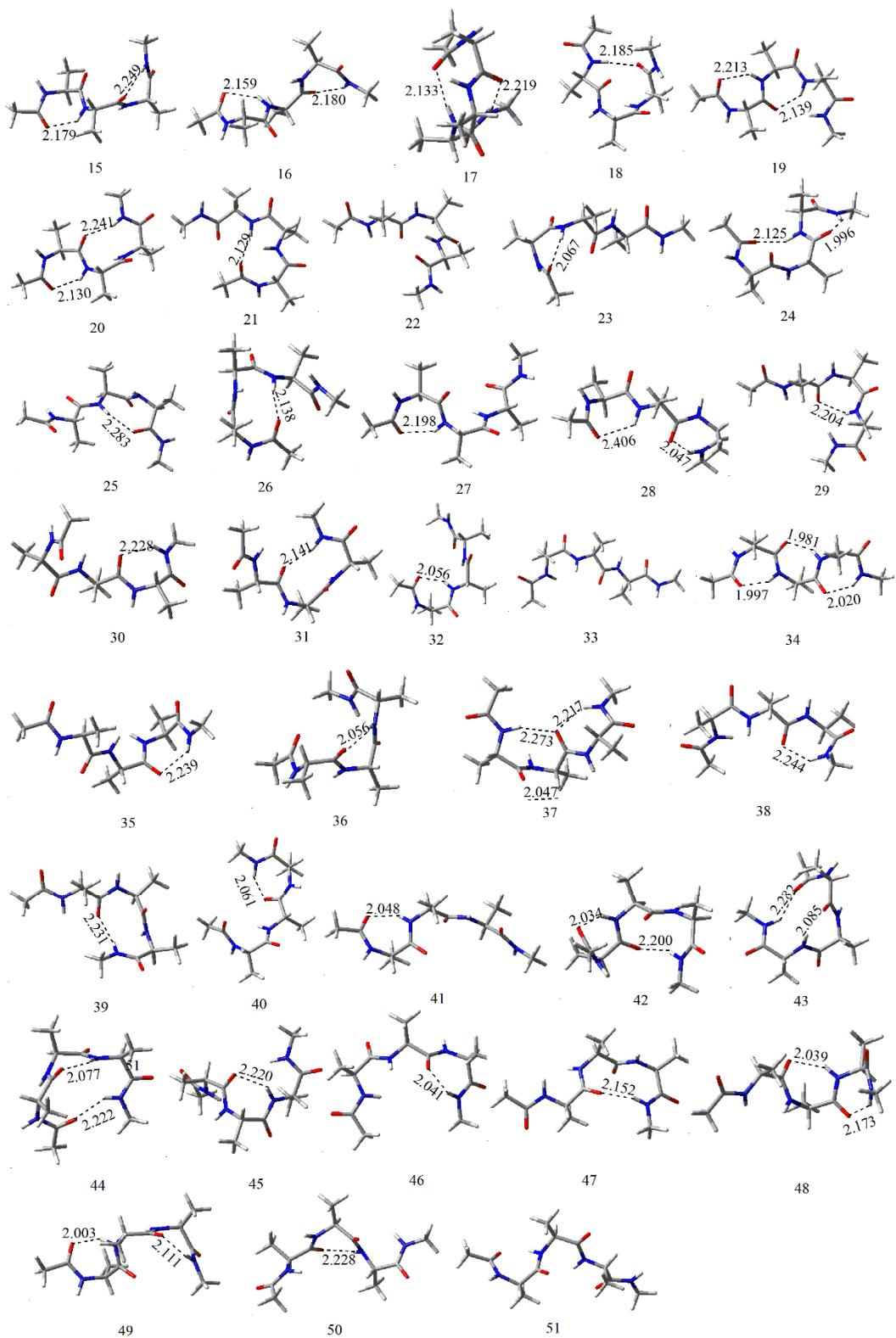
The total 3-body interaction energies ( $IE_{3B}$ ) are calculated using the counterpoise-corrected MP2/aug-cc-pVDZ method and our peptide potential. The relevant parameters for water molecules are taken from our previous work (J. Comput. Chem. 2023, 44, 677-686)

A) 28 conformations of the glycine tetrapeptide



B) 51 conformations of the alanine tetrapeptide





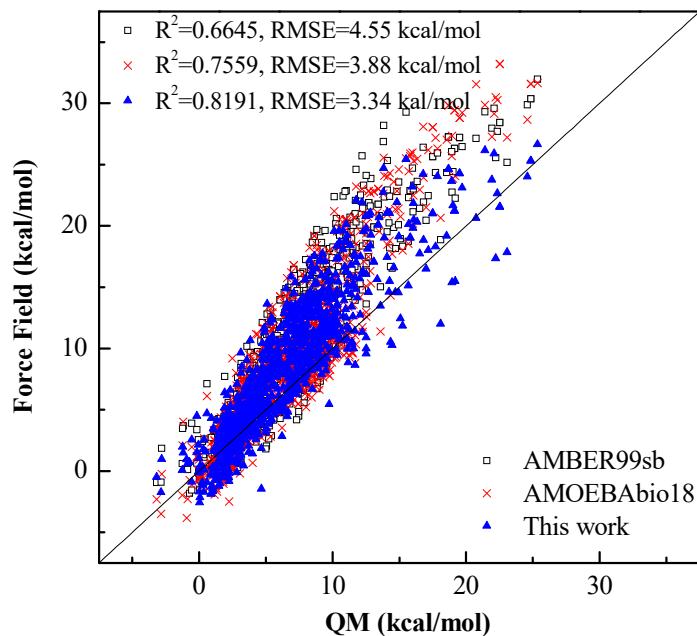
**Figure S2.** 79 conformations used to derive the scale factors for intramolecular dipole-dipole interactions.

**Table S1.** RMSEs of different methods with respect to the benchmark QM conformational energies (kcal/mol) dipeptides: QM=RIMP2/CBS<sup>a</sup>, tetrapeptides: QM=LMP2/cc-pVQZ(-g)<sup>b</sup>.

|                         | Number of conformers | AM-BER99sb | AMOBEA-bio18 | This work |
|-------------------------|----------------------|------------|--------------|-----------|
| AcGlyNHMe               | 325                  | 3.71       | 3.96         | 2.36      |
| AcAlaNHMe               | 625                  | 5.12       | 3.99         | 3.87      |
| AcGly <sub>3</sub> NHMe | 28                   | 2.90       | 3.10         | 2.12      |
| AcAla <sub>3</sub> NHMe | 51                   | 2.14       | 2.08         | 1.84      |

<sup>a</sup>Lopes, P. E. M.; Huang, J.; Shim, J.; Luo, Y.; Li, H.; Roux, B.; MacKerell, A. D. Polarizable Force Field for Peptides and Proteins Based on the Classical Drude Oscillator. *Journal of Chemical Theory and Computation* **2013**, *9*, 5430-5449.

<sup>b</sup>Hornak, V.; Abel, R.; Okur, A.; Strockbine, B.; Roitberg, A.; Simmerling, C. Comparison of multiple Amber force fields and development of improved protein backbone parameters. *Proteins: Structure, Function, and Bioinformatics* **2006**, *65*, 712-725.



**Figure S3.** The linear correlations between the QM conformational energies and the force field ones for all the structures included in Table S1.

**Table S2.** (a) Bond stretching parameters used in our potential.<sup>a</sup>

| <b>Bond</b> | <i>k<sub>b</sub></i> | <i>b<sub>0</sub></i> | <b>Bond</b> | <i>k<sub>b</sub></i> | <i>b<sub>0</sub></i> | <b>Bond</b> | <i>k<sub>b</sub></i> | <i>b<sub>0</sub></i> |
|-------------|----------------------|----------------------|-------------|----------------------|----------------------|-------------|----------------------|----------------------|
| CA-CA       | 469.00               | 1.4000               | C-O(Ac)     | 570.00               | 1.2290               | CT-S        | 227.00               | 1.8100               |
| CA-CB       | 469.00               | 1.4040               | CR-H5       | 367.00               | 1.0800               | CT-SH       | 237.00               | 1.8100               |
| CA-CN       | 469.00               | 1.4000               | CR-NA       | 477.00               | 1.3430               | CV-H4       | 367.00               | 1.0800               |
| CA-HA       | 367.00               | 1.0800               | CR-NB       | 488.00               | 1.3350               | CV-NB       | 410.00               | 1.3940               |
| CA-OH       | 450.00               | 1.3640               | CT-C        | 317.00               | 1.5220               | CW-C*       | 546.00               | 1.3520               |
| CB-C*       | 388.00               | 1.4590               | CT-C*       | 317.00               | 1.4950               | CW-H4       | 367.00               | 1.0800               |
| CB-CN       | 447.00               | 1.4190               | CT-CA       | 317.00               | 1.5100               | CW-NA       | 427.00               | 1.3810               |
| CC-CV       | 512.00               | 1.3750               | CT-CC       | 317.00               | 1.5040               | NA-H        | 434.00               | 1.0100               |
| CC-CW       | 518.00               | 1.3710               | CT-CT       | 310.00               | 1.5260               | N-H         | 434.00               | 1.0100               |
| CC-NA       | 422.00               | 1.3850               | CT-H1       | 340.00               | 1.0900               | N-HQ        | 434.00               | 1.0100               |
| CC-NB       | 410.00               | 1.3940               | CT-H2       | 340.00               | 1.0900               | OH-HO       | 553.00               | 0.9600               |
| C-N         | 490.00               | 1.3350               | CT-HC       | 340.00               | 1.0900               | SH-HS       | 274.00               | 1.3360               |
| CN-NA       | 428.00               | 1.3800               | CT-N        | 337.00               | 1.4490               |             |                      |                      |
| C-O         | 570.00               | 1.2290               | CT-OH       | 320.00               | 1.4100               |             |                      |                      |

<sup>a</sup>The unit for the stretching force constant is kcal/(mol Å<sup>2</sup>). The unit for the equilibrium bond length is Å.

**Table S2.** (b) Angle bending parameters used in our potential.<sup>b</sup>

| <b>Angle</b> | <i>k<sub>θ</sub></i> | <i>θ<sub>0</sub></i> | <b>Angle</b> | <i>k<sub>θ</sub></i> | <i>θ<sub>0</sub></i> | <b>Angle</b> | <i>k<sub>θ</sub></i> | <i>θ<sub>0</sub></i> |
|--------------|----------------------|----------------------|--------------|----------------------|----------------------|--------------|----------------------|----------------------|
| C*-CB-CN     | 63.00                | 108.80               | C-N-H        | 50.00                | 120.00               | CT-N-CT      | 50.00                | 118.00               |
| C*-CT-HC     | 50.00                | 109.50               | CN-CA-HA     | 50.00                | 120.00               | CT-OH-HO     | 55.00                | 108.50               |
| C*-CW-H4     | 50.00                | 120.00               | C-N-HQ       | 50.00                | 120.00               | CT-S-CT      | 62.00                | 98.90                |
| C*-CW-NA     | 70.00                | 108.70               | CN-NA-H      | 50.00                | 123.10               | CT-SH-HS     | 43.00                | 96.00                |
| CA-CA-CA     | 63.00                | 120.00               | CR-NA-H      | 50.00                | 120.00               | CV-CC-NA     | 70.00                | 120.00               |
| CA-CA-CB     | 63.00                | 120.00               | CT-C*-CB     | 70.00                | 128.60               | CV-NB-CR     | 70.00                | 117.00               |
| CA-CA-CN     | 63.00                | 120.00               | CT-C*-CW     | 70.00                | 125.00               | CW-C*-CB     | 63.00                | 106.40               |
| CA-CA-H4     | 50.00                | 120.00               | CT-CA-CA     | 70.00                | 120.00               | CW-CC-NA     | 70.00                | 120.00               |
| CA-CA-HA     | 50.00                | 120.00               | CT-CC-CV     | 70.00                | 120.00               | CW-CC-NB     | 70.00                | 120.00               |
| CA-CA-OH     | 70.00                | 120.00               | CT-CC-CW     | 70.00                | 120.00               | CW-NA-CN     | 70.00                | 111.60               |
| CA-CB-C*     | 63.00                | 134.90               | CT-CC-NA     | 70.00                | 120.00               | CW-NA-CR     | 70.00                | 120.00               |
| CA-CB-CN     | 63.00                | 116.20               | CT-CC-NB     | 70.00                | 120.00               | CW-NA-H      | 50.00                | 120.00               |
| CA-CB-NB     | 70.00                | 132.40               | CT-C-N       | 70.00                | 116.60               | H1-CT-H1     | 35.00                | 109.50               |
| CA-CN-CB     | 63.00                | 122.70               | CT-C-O       | 80.00                | 120.40               | H2-CT-H2     | 35.00                | 109.50               |
| CA-CN-NA     | 70.00                | 132.80               | CT-C-O(Ac)   | 80.00                | 120.40               | HC-CT-HC     | 35.00                | 109.50               |
| CA-CT-HC     | 50.00                | 109.50               | CT-CT-C      | 63.00                | 111.10               | HC-CT-OH     | 50.00                | 109.50               |
| CA-OH-HO     | 50.00                | 113.00               | CT-CT-C*     | 63.00                | 115.60               | HQ-N-HQ      | 35.00                | 120.00               |
| CB-CA-HA     | 50.00                | 120.00               | CT-CT-CA     | 63.00                | 114.00               | NA-CR-H5     | 50.00                | 120.00               |
| CB-CN-NA     | 70.00                | 104.40               | CT-CT-CC     | 63.00                | 113.10               | NA-CR-NA     | 70.00                | 120.00               |
| CC-CT-HC     | 50.00                | 109.50               | CT-CT-CT     | 40.00                | 109.50               | NA-CR-NB     | 70.00                | 120.00               |
| CC-CV-H4     | 50.00                | 120.00               | CT-CT-H1     | 50.00                | 109.50               | NA-CW-H4     | 50.00                | 120.00               |
| CC-CV-NB     | 70.00                | 120.00               | CT-CT-H2     | 50.00                | 109.50               | NB-CR-H5     | 50.00                | 120.00               |
| CC-CW-H4     | 50.00                | 120.00               | CT-CT-HC     | 50.00                | 109.50               | NB-CV-H4     | 50.00                | 120.00               |
| CC-CW-NA     | 70.00                | 120.00               | CT-CT-N      | 80.00                | 109.70               | N-C-O        | 80.00                | 122.90               |
| CC-NA-CR     | 70.00                | 120.00               | CT-CT-N      | 80.00                | 109.70               | N-C-O(Ac)    | 80.00                | 122.90               |
| CC-NA-H      | 50.00                | 120.00               | CT-CT-OH     | 50.00                | 109.50               | N-CT-H1      | 50.00                | 109.50               |
| CC-NB-CR     | 70.00                | 117.00               | CT-CT-S      | 50.00                | 114.70               | N-CT-HC      | 50.00                | 109.50               |
| C-CT-H1      | 50.00                | 109.50               | CT-CT-SH     | 50.00                | 108.60               | S-CT-H2      | 50.00                | 109.50               |
| C-CT-HC      | 50.00                | 109.50               | CT-N-C       | 50.00                | 121.90               | S-CT-HC      | 50.00                | 109.50               |
| C-CT-N       | 63.00                | 110.10               | CT-N-H       | 50.00                | 118.04               | SH-CT-HC     | 50.00                | 109.50               |

<sup>b</sup>The unit for the bending force constant is kcal/(mol·radian<sup>2</sup>), and the unit for the equilibrium angle is degree.

**Table S2.** (c) Dihedral angle parameters used in our potential.<sup>c</sup>

| Dihedral angle | V <sub>1/2</sub> | γ <sub>1</sub> | V <sub>1/2</sub> | γ <sub>1</sub> | V <sub>1/2</sub> | γ <sub>1</sub> |
|----------------|------------------|----------------|------------------|----------------|------------------|----------------|
| N-CT-C-N       | 0.450            | 180.0          | 1.580            | 180.0          | 0.550            | 180.0          |
| CT-CT-C-N      | 0.200            | 0.0            | 0.200            | 0.0            | 0.400            | 0.0            |
| CT-CT-N-C      | 2.000            | 0.0            | 2.000            | 0.0            | 0.400            | 0.0            |
| CT-CT-CT-CT    | 0.200            | 180.0          | 0.250            | 180.0          | 0.180            | 0.0            |
| HC-CT-C-O      | 0.800            | 0.0            | --               | --             | 0.080            | 180.0          |
| H1-CT-C-O      | 0.800            | 0.0            | --               | --             | 0.080            | 180.0          |
| H1-CT-C-O(Ac)  | 0.800            | 0.0            | --               | --             | 0.080            | 180.0          |
| HC-CT-C-O(Ac)  | 0.800            | 0.0            | --               | --             | 0.080            | 180.0          |
| CT-CT-OH-HO    | 0.025            | 0.0            | --               | --             | 0.160            | 0.0            |
| OH-CT-CT-HC    | 0.250            | 0.0            | --               | --             | 0.156            | 0.0            |
| C-CT-N-C       | --               | --             | 0.270            | 0.0            | 0.420            | 0.0            |
| O-C-N-H        | 2.000            | 0.0            | 2.500            | 180.0          | --               | --             |
| O-C-N-HQ       | 2.000            | 0.0            | 2.500            | 180.0          | --               | --             |
| O(Ac)-C-N-H    | 2.000            | 0.0            | 2.500            | 180.0          | --               | --             |
| C-CT-CT-HC     | --               | --             | --               | --             | 0.156            | 0.0            |
| N-CT-CT-HC     | --               | --             | --               | --             | 0.156            | 0.0            |
| H1-CT-CT-HC    | --               | --             | --               | --             | 0.156            | 0.0            |
| N-CT-CT-CT     | --               | --             | --               | --             | 0.156            | 0.0            |
| HC-CT-CT-HC    | --               | --             | --               | --             | 0.150            | 0.0            |
| C-CT-CT-CT     | --               | --             | --               | --             | 0.156            | 0.0            |
| HC-CT-CT-CT    | --               | --             | --               | --             | 0.160            | 0.0            |
| H1-CT-CT-CT    | --               | --             | --               | --             | 0.156            | 0.0            |
| C-CT-CT-C      | --               | --             | --               | --             | 0.156            | 0.0            |
| C-CT-CT-N      | --               | --             | --               | --             | 0.156            | 0.0            |
| N-CT-CT-CA     | --               | --             | --               | --             | 0.156            | 0.0            |
| C-CT-CT-CA     | --               | --             | --               | --             | 0.156            | 0.0            |
| CA-CT-CT-H1    | --               | --             | --               | --             | 0.156            | 0.0            |
| N-CT-CT-HC     | --               | --             | --               | --             | 0.156            | 0.0            |
| C-CT-CT-HC     | --               | --             | --               | --             | 0.156            | 0.0            |
| H1-CT-CT-HC    | --               | --             | --               | --             | 0.156            | 0.0            |
| OH-CT-CT-N     | --               | --             | --               | --             | 0.156            | 0.0            |
| OH-CT-CT-C     | --               | --             | --               | --             | 0.156            | 0.0            |
| OH-CT-CT-H1    | --               | --             | --               | --             | 0.156            | 0.0            |
| HO-OH-CT-HC    | --               | --             | --               | --             | 0.167            | 0.0            |
| C-CT-CT-SH     | --               | --             | --               | --             | 0.156            | 0.0            |
| N-CT-CT-SH     | --               | --             | --               | --             | 0.156            | 0.0            |
| SH-CT-CT-H1    | --               | --             | --               | --             | 0.156            | 0.0            |
| CT-CT-SH-HS    | --               | --             | --               | --             | 0.250            | 0.0            |
| HC-CT-SH-HS    | --               | --             | --               | --             | 0.250            | 0.0            |
| CT-CT-CT-S     | --               | --             | --               | --             | 0.156            | 0.0            |
| S-CT-CT-HC     | --               | --             | --               | --             | 0.156            | 0.0            |
| CT-CT-S-CT     | --               | --             | --               | --             | 0.333            | 0.0            |
| HC-CT-S-CT     | --               | --             | --               | --             | 0.333            | 0.0            |
| CT-CT-CT-H2    | --               | --             | --               | --             | 0.156            | 0.0            |
| HC-CT-CT-H2    | --               | --             | --               | --             | 0.156            | 0.0            |
| H2-CT-S-CT     | --               | --             | --               | --             | 0.333            | 0.0            |
| C-CT-CT-CC     | --               | --             | --               | --             | 0.156            | 0.0            |

|              |    |    |       |       |       |     |
|--------------|----|----|-------|-------|-------|-----|
| C-CT-CT-C*   | -- | -- | --    | --    | 0.156 | 0.0 |
| CC-CT-CT-N   | -- | -- | --    | --    | 0.156 | 0.0 |
| CC-CT-CT-H1  | -- | -- | --    | --    | 0.156 | 0.0 |
| C*-CT-CT-N   | -- | -- | --    | --    | 0.156 | 0.0 |
| C*-CT-CT-H1  | -- | -- | --    | --    | 0.156 | 0.0 |
| N-CT-C-O     | -- | -- | --    | --    | --    | --  |
| HC-CT-C-N    | -- | -- | --    | --    | --    | --  |
| H1-CT-C-N    | -- | -- | --    | --    | --    | --  |
| C-CT-N-H     | -- | -- | --    | --    | --    | --  |
| H1-CT-N-C    | -- | -- | --    | --    | --    | --  |
| H1-CT-N-H    | -- | -- | --    | --    | --    | --  |
| CT-CT-C-O    | -- | -- | --    | --    | --    | --  |
| CT-CT-N-H    | -- | -- | --    | --    | --    | --  |
| HC-CT-N-H    | -- | -- | --    | --    | --    | --  |
| HC-CT-N-C    | -- | -- | --    | --    | --    | --  |
| CT-N-CT-CT   | -- | -- | --    | --    | --    | --  |
| CT-N-CT-C    | -- | -- | --    | --    | --    | --  |
| CT-N-CT-H1   | -- | -- | --    | --    | --    | --  |
| CT-CT-CA-CA  | -- | -- | --    | --    | --    | --  |
| CA-CA-CT-HC  | -- | -- | --    | --    | --    | --  |
| CT-CT-CC-CV  | -- | -- | --    | --    | --    | --  |
| CT-CT-CC-CW  | -- | -- | --    | --    | --    | --  |
| CT-CT-CC-NA  | -- | -- | --    | --    | --    | --  |
| CT-CT-CC-NB  | -- | -- | --    | --    | --    | --  |
| HC-CT-CC-CV  | -- | -- | --    | --    | --    | --  |
| HC-CT-CC-CW  | -- | -- | --    | --    | --    | --  |
| HC-CT-CC-NA  | -- | -- | --    | --    | --    | --  |
| HC-CT-CC-NB  | -- | -- | --    | --    | --    | --  |
| CT-CT-C*-CW  | -- | -- | --    | --    | --    | --  |
| CT-CT-C*-CB  | -- | -- | --    | --    | --    | --  |
| HC-CT-C*-CW  | -- | -- | --    | --    | --    | --  |
| HC-CT-C*-CB  | -- | -- | --    | --    | --    | --  |
| O(Ac)-C-N-CT | -- | -- | 2.500 | 180.0 | --    | --  |
| CT-C-N-CT    | -- | -- | 2.500 | 180.0 | --    | --  |
| CT-C-N-H     | -- | -- | 2.500 | 180.0 | --    | --  |
| O-C-N-CT     | -- | -- | 2.500 | 180.0 | --    | --  |
| CT-C-N-HQ    | -- | -- | 2.500 | 180.0 | --    | --  |
| CT-CA-CA-CA  | -- | -- | 3.625 | 180.0 | --    | --  |
| CT-CA-CA-HA  | -- | -- | 3.625 | 180.0 | --    | --  |
| CA-CA-CA-HA  | -- | -- | 3.625 | 180.0 | --    | --  |
| CA-CA-CA-CA  | -- | -- | 3.625 | 180.0 | --    | --  |
| HA-CA-CA-HA  | -- | -- | 3.625 | 180.0 | --    | --  |
| CA-CA-CA-OH  | -- | -- | 3.625 | 180.0 | --    | --  |
| OH-CA-CA-HA  | -- | -- | 3.625 | 180.0 | --    | --  |
| CA-CA-OH-HO  | -- | -- | 0.900 | 180.0 | --    | --  |
| CA-CA-CA-CB  | -- | -- | 3.625 | 180.0 | --    | --  |
| CA-CA-CA-CN  | -- | -- | 3.625 | 180.0 | --    | --  |
| CB-CA-CA-HA  | -- | -- | 3.625 | 180.0 | --    | --  |
| CN-CA-CA-HA  | -- | -- | 3.625 | 180.0 | --    | --  |
| CA-CA-CB-C*  | -- | -- | 3.500 | 180.0 | --    | --  |
| CA-CA-CB-CN  | -- | -- | 3.500 | 180.0 | --    | --  |
| HA-CA-CB-C*  | -- | -- | 3.500 | 180.0 | --    | --  |
| HA-CA-CB-CN  | -- | -- | 3.500 | 180.0 | --    | --  |

|             |    |    |       |       |    |    |
|-------------|----|----|-------|-------|----|----|
| CA-CA-CN-CB | -- | -- | 3.625 | 180.0 | -- | -- |
| CA-CA-CN-NA | -- | -- | 3.625 | 180.0 | -- | -- |
| HA-CA-CN-CB | -- | -- | 3.625 | 180.0 | -- | -- |
| HA-CA-CN-NA | -- | -- | 3.625 | 180.0 | -- | -- |
| CT-CC-CV-NB | -- | -- | 5.150 | 180.0 | -- | -- |
| CT-CC-CV-H4 | -- | -- | 5.150 | 180.0 | -- | -- |
| NA-CC-CV-NB | -- | -- | 5.150 | 180.0 | -- | -- |
| NA-CC-CV-H4 | -- | -- | 5.150 | 180.0 | -- | -- |
| CT-CC-CW-NA | -- | -- | 5.375 | 180.0 | -- | -- |
| CT-CC-CW-H4 | -- | -- | 5.375 | 180.0 | -- | -- |
| NA-CC-CW-NA | -- | -- | 5.375 | 180.0 | -- | -- |
| NA-CC-CW-H4 | -- | -- | 5.375 | 180.0 | -- | -- |
| NB-CC-CW-NA | -- | -- | 5.375 | 180.0 | -- | -- |
| NB-CC-CW-H4 | -- | -- | 5.375 | 180.0 | -- | -- |
| CT-CC-NA-CR | -- | -- | 1.400 | 180.0 | -- | -- |
| CT-CC-NA-H  | -- | -- | 1.400 | 180.0 | -- | -- |
| CV-CC-NA-CR | -- | -- | 1.400 | 180.0 | -- | -- |
| CV-CC-NA-H  | -- | -- | 1.400 | 180.0 | -- | -- |
| CW-CC-NA-CR | -- | -- | 1.400 | 180.0 | -- | -- |
| CW-CC-NA-H  | -- | -- | 1.400 | 180.0 | -- | -- |
| CT-CC-NB-CR | -- | -- | 2.400 | 180.0 | -- | -- |
| CW-CC-NB-CR | -- | -- | 2.400 | 180.0 | -- | -- |
| CC-CV-NB-CR | -- | -- | 2.400 | 180.0 | -- | -- |
| H4-CV-NB-CR | -- | -- | 2.400 | 180.0 | -- | -- |
| NA-CW-C*-CT | -- | -- | 6.525 | 180.0 | -- | -- |
| NA-CW-C*-CB | -- | -- | 6.525 | 180.0 | -- | -- |
| H4-CW-C*-CT | -- | -- | 6.525 | 180.0 | -- | -- |
| H4-CW-C*-CB | -- | -- | 6.525 | 180.0 | -- | -- |
| CC-CW-NA-CR | -- | -- | 1.500 | 180.0 | -- | -- |
| CC-CW-NA-H  | -- | -- | 1.500 | 180.0 | -- | -- |
| C*-CW-NA-CN | -- | -- | 1.500 | 180.0 | -- | -- |
| C*-CW-NA-H  | -- | -- | 1.500 | 180.0 | -- | -- |
| H4-CW-NA-CR | -- | -- | 1.500 | 180.0 | -- | -- |
| H4-CW-NA-CN | -- | -- | 1.500 | 180.0 | -- | -- |
| H4-CW-NA-H  | -- | -- | 1.500 | 180.0 | -- | -- |
| NA-CR-NA-CC | -- | -- | 2.325 | 180.0 | -- | -- |
| NA-CR-NA-CW | -- | -- | 2.325 | 180.0 | -- | -- |
| NA-CR-NA-H  | -- | -- | 2.325 | 180.0 | -- | -- |
| NB-CR-NA-CC | -- | -- | 2.325 | 180.0 | -- | -- |
| NB-CR-NA-CW | -- | -- | 2.325 | 180.0 | -- | -- |
| NB-CR-NA-H  | -- | -- | 2.325 | 180.0 | -- | -- |
| H5-CR-NA-CC | -- | -- | 2.325 | 180.0 | -- | -- |
| H5-CR-NA-CW | -- | -- | 2.325 | 180.0 | -- | -- |
| H5-CR-NA-H  | -- | -- | 2.325 | 180.0 | -- | -- |
| NA-CR-NB-CC | -- | -- | 5.000 | 180.0 | -- | -- |
| NA-CR-NB-CV | -- | -- | 5.000 | 180.0 | -- | -- |
| H5-CR-NB-CC | -- | -- | 5.000 | 180.0 | -- | -- |
| H5-CR-NB-CV | -- | -- | 5.000 | 180.0 | -- | -- |
| CA-CB-C*-CT | -- | -- | 1.675 | 180.0 | -- | -- |
| CA-CB-C*-CW | -- | -- | 1.675 | 180.0 | -- | -- |
| CN-CB-C*-CT | -- | -- | 1.675 | 180.0 | -- | -- |
| CN-CB-C*-CW | -- | -- | 1.675 | 180.0 | -- | -- |
| CA-CB-CN-CA | -- | -- | 3.000 | 180.0 | -- | -- |

|              |    |    |        |       |    |    |
|--------------|----|----|--------|-------|----|----|
| CA-CB-CN-NA  | -- | -- | 3.000  | 180.0 | -- | -- |
| C*-CB-CN-CA  | -- | -- | 3.000  | 180.0 | -- | -- |
| C*-CB-CN-NA  | -- | -- | 3.000  | 180.0 | -- | -- |
| CA-CN-NA-CW  | -- | -- | 1.525  | 180.0 | -- | -- |
| CA-CN-NA-H   | -- | -- | 1.525  | 180.0 | -- | -- |
| CB-CN-NA-CW  | -- | -- | 1.525  | 180.0 | -- | -- |
| CB-CN-NA-H   | -- | -- | 1.525  | 180.0 | -- | -- |
| C*-NA-CW-H4  | -- | -- | 1.100  | 180.0 | -- | -- |
| CA-CA-CA-HA  | -- | -- | 1.100  | 180.0 | -- | -- |
| CA-CA-CA-OH  | -- | -- | 1.100  | 180.0 | -- | -- |
| CA-CB-CA-HA  | -- | -- | 1.100  | 180.0 | -- | -- |
| CC-CR-NA-H   | -- | -- | 1.000  | 180.0 | -- | -- |
| CC-NA-CW-H4  | -- | -- | 1.100  | 180.0 | -- | -- |
| CC-NB-CV-H4  | -- | -- | 1.100  | 180.0 | -- | -- |
| C-CT-N-CT    | -- | -- | 1.000  | 180.0 | -- | -- |
| C-H-N-CT     | -- | -- | 1.000  | 180.0 | -- | -- |
| C-H-N-H      | -- | -- | 1.000  | 180.0 | -- | -- |
| C-HQ-N-HQ    | -- | -- | 1.000  | 180.0 | -- | -- |
| CN-CA-CA-HA  | -- | -- | 1.100  | 180.0 | -- | -- |
| CR-CW-NA-H   | -- | -- | 1.000  | 180.0 | -- | -- |
| CT-CA-CA-CA  | -- | -- | 1.100  | 180.0 | -- | -- |
| CT-O(Ac)-C-N | -- | -- | 10.500 | 180.0 | -- | -- |
| CW-CB-C*-CT  | -- | -- | 1.100  | 180.0 | -- | -- |
| CW-CN-NA-H   | -- | -- | 1.000  | 180.0 | -- | -- |
| NA-CV-CC-CT  | -- | -- | 1.100  | 180.0 | -- | -- |
| NA-CW-CC-CT  | -- | -- | 1.100  | 180.0 | -- | -- |
| NA-NA-CR-H5  | -- | -- | 1.100  | 180.0 | -- | -- |
| NA-NB-CR-H5  | -- | -- | 1.100  | 180.0 | -- | -- |
| NB-CW-CC-CT  | -- | -- | 1.100  | 180.0 | -- | -- |
| NB-NA-CR-H5  | -- | -- | 1.100  | 180.0 | -- | -- |
| N-O-C-CT     | -- | -- | 10.500 | 180.0 | -- | -- |

The unit for the Fourier coefficient is kcal/mol, and the unit for the phase angle is degree.

**Table S3.** The backbone dihedral angles and hydrogen bond lengths for polypeptides AcAla<sub>4</sub>XAla<sub>4</sub>NHMe (X=Val, Ile, Leu, Asn, Gln, Ser, Thr, Phe, Cys, Met, His, Ile, Trp and Tyr), AcAla<sub>13</sub>NH<sub>2</sub> and Ac(Ala<sub>2</sub>GlnAla<sub>2</sub>)<sub>3</sub>NH<sub>2</sub>.

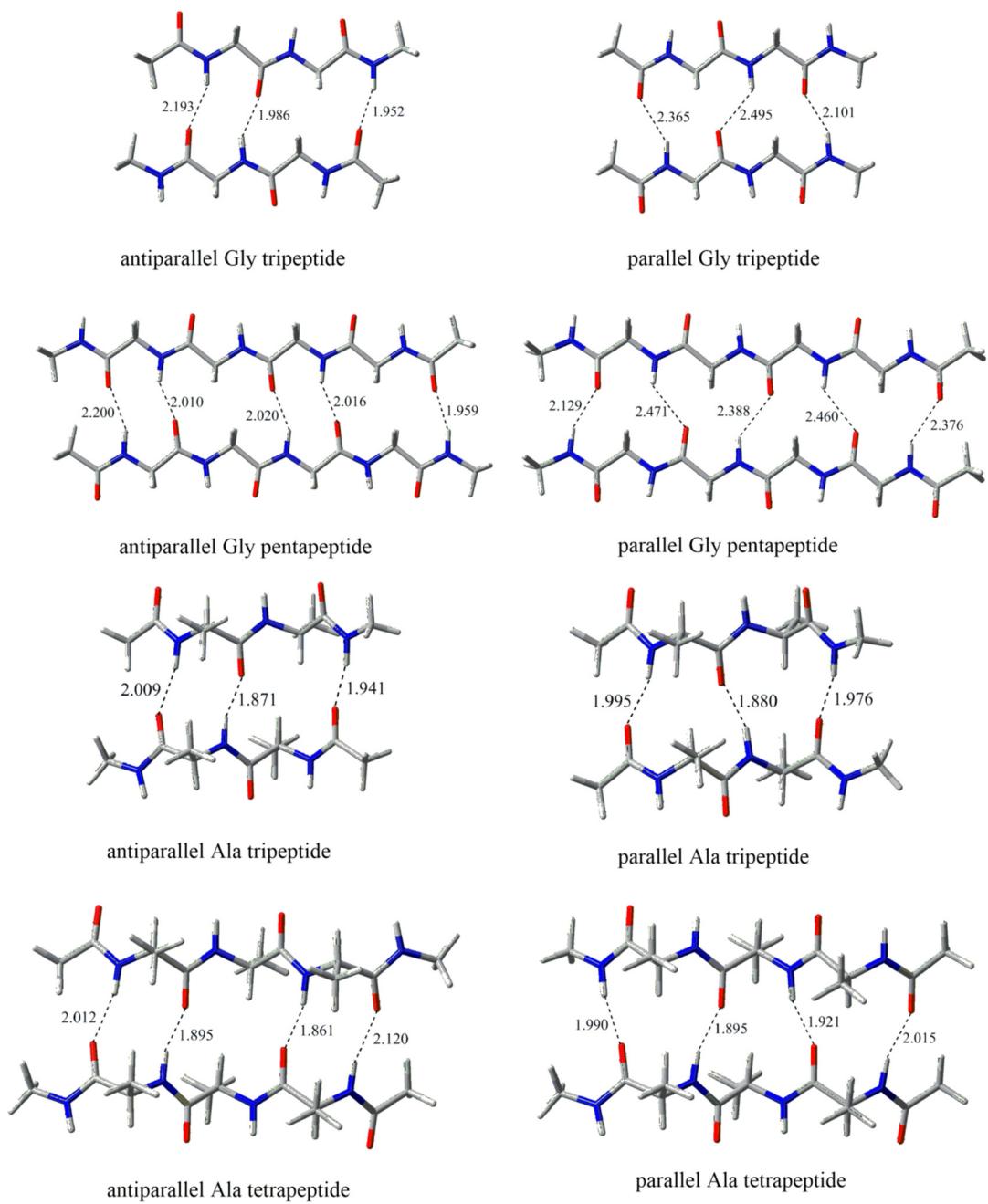
|   | $\varphi$ (degree) |        |        | $\psi$ (degree)  |          |                  | R(O···H) (Å) |      |                  |      |
|---|--------------------|--------|--------|------------------|----------|------------------|--------------|------|------------------|------|
|   |                    |        |        | helix            | C5       | C7 <sub>eq</sub> | helix        | C5   | C7 <sub>eq</sub> |      |
|   | $\varphi_1$        | helix  | C5     | C7 <sub>eq</sub> | $\psi_1$ | -25.5            | 165.6        | 68.8 | 2.04             | 1.97 |
| AcAla <sub>4</sub> ValAla <sub>4</sub> NHMe | $\varphi_2$        | -58.8  | -159.3 | -83.7            | $\psi_2$ | -23.1            | 166.6        | 66.5 | 2.13             | 1.97 |
|   | $\varphi_3$        | -59.6  | -159.6 | -83.8            | $\psi_3$ | -29.8            | 166.3        | 66.6 | 2.19             | 1.96 |
|   | $\varphi_4$        | -68.3  | -160.5 | -83.8            | $\psi_4$ | -29.8            | 165.0        | 67.0 | 2.18             | 1.98 |
|   | $\varphi_5$        | -73.5  | -132.8 | -83.4            | $\psi_5$ | -43.3            | 162.2        | 75.2 | 2.21             | 1.99 |
|   | $\varphi_6$        | -58.1  | -161.4 | -85.2            | $\psi_6$ | -32.9            | 167.5        | 66.6 | 2.16             | 1.97 |
|   | $\varphi_7$        | -60.0  | -158.4 | -83.7            | $\psi_7$ | -25.5            | 167.4        | 66.7 | 2.08             | 1.97 |
|   | $\varphi_8$        | -71.2  | -159.9 | -84.5            | $\psi_8$ | -7.4             | 168.0        | 66.4 | 2.14             | 1.99 |
|   | $\varphi_9$        | -101.2 | -158.3 | -84.7            | $\psi_9$ | 8.8              | 165.2        | 68.8 |                  | 2.00 |
|   | $\varphi_1$        | -65.0  | -158.6 | -82.4            | $\psi_1$ | -25.5            | 166.9        | 68.4 | 2.05             | 1.97 |
| AcAla <sub>4</sub> LeuAla <sub>4</sub> NHMe | $\varphi_2$        | -58.7  | -158.8 | -83.7            | $\psi_2$ | -22.5            | 167.3        | 66.8 | 2.11             | 1.97 |
|   | $\varphi_3$        | -58.9  | -158.8 | -83.8            | $\psi_3$ | -30.4            | 168.6        | 67.4 | 2.21             | 1.96 |
|   | $\varphi_4$        | -67.9  | -158.5 | -83.2            | $\psi_4$ | -31.0            | 168.4        | 67.7 | 2.20             | 1.96 |
|   | $\varphi_5$        | -71.2  | -153.9 | -84.2            | $\psi_5$ | -44.1            | 142.7        | 74.4 | 2.16             | 1.98 |
|   | $\varphi_6$        | -58.1  | -159.5 | -85.0            | $\psi_6$ | -33.7            | 169.7        | 65.7 | 2.17             | 1.96 |
|   | $\varphi_7$        | -60.2  | -158.3 | -83.0            | $\psi_7$ | -25.8            | 167.3        | 67.8 | 2.08             | 1.97 |
|   | $\varphi_8$        | -70.7  | -160.1 | -84.4            | $\psi_8$ | -7.9             | 167.7        | 65.6 | 2.13             | 1.98 |
|   | $\varphi_9$        | -101.2 | -158.3 | -84.6            | $\psi_9$ | 8.8              | 165.5        | 68.8 |                  | 2.00 |
|   | $\varphi_1$        | -65.1  | -158.5 | -82.3            | $\psi_1$ | -25.8            | 167.5        | 68.4 | 2.04             | 1.97 |
| AcAla <sub>4</sub> IleAla <sub>4</sub> NHMe | $\varphi_2$        | -57.9  | -158.1 | -83.9            | $\psi_2$ | -25.1            | 166.8        | 66.6 | 2.13             | 1.97 |
|   | $\varphi_3$        | -60.2  | -159.5 | -83.8            | $\psi_3$ | -30.5            | 168.0        | 67.0 | 2.19             | 1.96 |
|   | $\varphi_4$        | -69.0  | -158.7 | -84.3            | $\psi_4$ | -29.2            | 167.7        | 61.6 | 2.24             | 1.95 |
|   | $\varphi_5$        | -72.9  | -153.8 | -85.0            | $\psi_5$ | -43.9            | 158.6        | 68.9 | 2.17             | 1.97 |
|   | $\varphi_6$        | -58.4  | -157.2 | -84.8            | $\psi_6$ | -33.3            | 169.0        | 66.4 | 2.16             | 1.97 |
|   | $\varphi_7$        | -60.2  | -159.3 | -83.7            | $\psi_7$ | -25.4            | 167.0        | 66.8 | 2.08             | 1.97 |
|   | $\varphi_8$        | -71.0  | -159.3 | -84.5            | $\psi_8$ | -7.5             | 167.4        | 67.1 | 2.13             | 1.99 |
|   | $\varphi_9$        | -101.7 | -159.1 | -84.7            | $\psi_9$ | 9.4              | 165.4        | 69.0 |                  | 2.00 |
|   | $\varphi_1$        | -65.3  | -158.4 | -82.3            | $\psi_1$ | -25.3            | 167.0        | 69.4 | 2.04             | 1.98 |
| AcAla <sub>4</sub> SerAla <sub>4</sub> NHMe | $\varphi_2$        | -58.9  | -159.0 | -83.6            | $\psi_2$ | -22.1            | 166.4        | 67.4 | 2.13             | 1.97 |
|   | $\varphi_3$        | -59.5  | -159.3 | -83.5            | $\psi_3$ | -28.8            | 167.9        | 67.4 | 2.18             | 1.95 |
|   | $\varphi_4$        | -68.7  | -158.7 | -83.0            | $\psi_4$ | -27.3            | 167.4        | 66.9 | 2.24             | 1.93 |
|   | $\varphi_5$        | -75.5  | -160.6 | -83.1            | $\psi_5$ | -45.8            | 173.3        | 59.4 | 2.14             | 1.92 |
|   | $\varphi_6$        | -57.1  | -156.7 | -83.0            | $\psi_6$ | -32.6            | 168.2        | 68.0 | 2.10             | 1.99 |
|   | $\varphi_7$        | -59.4  | -160.5 | -84.7            | $\psi_7$ | -25.4            | 167.7        | 66.6 | 2.08             | 1.98 |
|   | $\varphi_8$        | -70.7  | -158.2 | -84.4            | $\psi_8$ | -8.3             | 167.0        | 66.2 | 2.13             | 1.99 |
|   | $\varphi_9$        | -101.2 | -158.9 | -84.6            | $\psi_9$ | 9.1              | 165.6        | 69.6 |                  | 2.01 |
|   | $\varphi_1$        | -65.3  | -158.6 | -82.3            | $\psi_1$ | -25.3            | 167.0        | 69.4 | 2.04             | 1.98 |
| AcAla <sub>4</sub> ThrAla <sub>4</sub> NHMe | $\varphi_2$        | -58.9  | -158.7 | -83.6            | $\psi_2$ | -22.1            | 166.4        | 67.4 | 2.13             | 1.96 |
|   | $\varphi_3$        | -60.0  | -160.5 | -83.5            | $\psi_3$ | -28.8            | 167.9        | 67.4 | 2.18             | 1.96 |
|   | $\varphi_4$        | -69.8  | -158.7 | -82.9            | $\psi_4$ | -27.3            | 167.4        | 66.9 | 2.23             | 1.96 |
|   | $\varphi_5$        | -75.7  | -133.0 | -82.7            | $\psi_5$ | -45.8            | 173.3        | 59.4 | 2.15             | 1.92 |
|   | $\varphi_6$        | -57.2  | -157.7 | -83.1            | $\psi_6$ | -32.6            | 168.2        | 68.0 | 2.09             | 1.99 |
|   | $\varphi_7$        | -58.8  | -159.0 | -85.4            | $\psi_7$ | -25.4            | 167.7        | 66.6 | 2.07             | 1.98 |
|   | $\varphi_8$        | -70.3  | -159.5 | -84.2            | $\psi_8$ | -8.3             | 167.0        | 66.2 | 2.12             | 1.99 |
|   | $\varphi_9$        | -101.1 | -158.7 | -84.6            | $\psi_9$ | 9.1              | 165.6        | 69.6 |                  | 2.00 |
| AcAla <sub>4</sub> PheAla <sub>4</sub> NHMe | $\varphi_1$        | -65.0  | -158.9 | -82.3            | $\psi_1$ | -25.5            | 166.4        | 69.6 | 2.04             | 1.98 |

|   |             |        |        |       |          |       |       |       |      |      |
|---|-------------|--------|--------|-------|----------|-------|-------|-------|------|------|
|   | $\varphi_2$ | -58.5  | -159.1 | -83.5 | $\psi_2$ | -23.0 | 167.1 | 66.1  | 2.11 | 1.96 |
|   | $\varphi_3$ | -59.1  | -158.1 | -83.8 | $\psi_3$ | -30.6 | 166.1 | 67.1  | 2.21 | 1.96 |
|   | $\varphi_4$ | -68.4  | -161.0 | -83.4 | $\psi_4$ | -29.5 | 168.2 | 66.0  | 2.21 | 1.95 |
|   | $\varphi_5$ | -72.4  | -158.1 | -84.8 | $\psi_5$ | -45.2 | 155.7 | 73.2  | 2.17 | 2.00 |
|   | $\varphi_6$ | -57.9  | -161.2 | -85.4 | $\psi_6$ | -32.4 | 163.3 | 66.3  | 2.14 | 1.98 |
|   | $\varphi_7$ | -59.8  | -159.2 | -83.5 | $\psi_7$ | -25.6 | 166.4 | 66.7  | 2.08 | 1.96 |
|   | $\varphi_8$ | -70.0  | -159.4 | -84.5 | $\psi_8$ | -9.2  | 167.3 | 66.4  | 2.12 | 1.99 |
|   | $\varphi_9$ | -101.8 | -159.0 | -84.6 | $\psi_9$ | 9.8   | 165.2 | 69.4  |      | 2.00 |
| AcAla <sub>4</sub> TyrAla <sub>4</sub> NHMe | $\varphi_1$ | -65.0  | -158.6 | -82.6 | $\psi_1$ | -25.6 | 166.6 | 68.5  | 2.04 | 1.98 |
|   | $\varphi_2$ | -58.4  | -158.7 | -83.9 | $\psi_2$ | -23.5 | 166.7 | 65.6  | 2.12 | 1.97 |
|   | $\varphi_3$ | -59.4  | -158.8 | -83.7 | $\psi_3$ | -30.1 | 167.5 | 66.6  | 2.22 | 1.96 |
|   | $\varphi_4$ | -67.9  | -159.9 | -83.7 | $\psi_4$ | -30.4 | 168.4 | 66.0  | 2.19 | 1.95 |
|   | $\varphi_5$ | -72.9  | -154.9 | -84.8 | $\psi_5$ | -44.5 | 175.2 | 72.5  | 2.17 | 1.99 |
|   | $\varphi_6$ | -58.0  | -149.2 | -85.6 | $\psi_6$ | -32.3 | 175.8 | 66.8  | 2.12 | 1.99 |
|   | $\varphi_7$ | -59.8  | -159.1 | -83.6 | $\psi_7$ | -25.4 | 166.1 | 66.4  | 2.09 | 1.96 |
|   | $\varphi_8$ | -70.9  | -159.3 | -84.5 | $\psi_8$ | -8.0  | 166.6 | 66.7  | 2.13 | 1.99 |
|   | $\varphi_9$ | -102.0 | -158.7 | -84.6 | $\psi_9$ | 9.6   | 165.7 | 69.4  |      | 2.00 |
|   | $\varphi_1$ | -62.8  | -158.4 | -82.3 | $\psi_1$ | -30.8 | 167.3 | 69.85 | 2.07 | 1.98 |
| AcAla <sub>4</sub> AsnAla <sub>4</sub> NHMe | $\varphi_2$ | -57.6  | -157.7 | -83.4 | $\psi_2$ | -31.8 | 166.4 | 67.83 | 2.32 | 1.97 |
|   | $\varphi_3$ | -65.4  | -159.8 | -83.6 | $\psi_3$ | -40.1 | 168.3 | 68.25 | 2.19 | 1.96 |
|   | $\varphi_4$ | -64.5  | -157.7 | -82.5 | $\psi_4$ | -39.8 | 166.3 | 68.37 | 2.10 | 1.94 |
|   | $\varphi_5$ | -61.6  | -165.0 | -83.0 | $\psi_5$ | -39.0 | 177.1 | 65.42 | 2.17 | 1.96 |
|   | $\varphi_6$ | -68.1  | -155.5 | -82.9 | $\psi_6$ | -39.4 | 158.0 | 64.79 | 2.47 | 1.98 |
|   | $\varphi_7$ | -61.5  | -157.9 | -85.4 | $\psi_7$ | -29.3 | 166.6 | 66.69 | 2.12 | 1.97 |
|   | $\varphi_8$ | -68.4  | -159.1 | -84.3 | $\psi_8$ | -9.9  | 167.4 | 65.67 | 2.11 | 1.98 |
|   | $\varphi_9$ | -99.5  | -158.3 | -84.7 | $\psi_9$ | 7.5   | 165.0 | 69.55 |      | 2.00 |
|   | $\varphi_1$ | -63.2  | -158.8 | -82.2 | $\psi_1$ | -30.4 | 166.7 | 69.6  | 2.07 | 1.98 |
|   | $\varphi_2$ | -57.4  | -158.7 | -83.7 | $\psi_2$ | -31.9 | 166.2 | 67.3  | 2.28 | 1.98 |
| AcAla <sub>4</sub> GlnAla <sub>4</sub> NHMe | $\varphi_3$ | -65.4  | -159.5 | -83.0 | $\psi_3$ | -38.7 | 166.5 | 69.8  | 2.24 | 1.97 |
|   | $\varphi_4$ | -65.6  | -158.7 | -82.2 | $\psi_4$ | -39.7 | 165.4 | 58.0  | 2.16 | 1.88 |
|   | $\varphi_5$ | -61.8  | -156.2 | -88.3 | $\psi_5$ | -39.4 | 162.9 | 60.4  | 2.12 | 2.00 |
|   | $\varphi_6$ | -67.3  | -160.6 | -83.8 | $\psi_6$ | -42.2 | 163.5 | 65.2  | 2.31 | 1.97 |
|   | $\varphi_7$ | -61.5  | -160.5 | -83.6 | $\psi_7$ | -31.7 | 166.3 | 67.6  | 2.15 | 1.97 |
|   | $\varphi_8$ | -69.8  | -158.9 | -84.5 | $\psi_8$ | -8.5  | 166.2 | 66.9  | 2.12 | 1.99 |
|   | $\varphi_9$ | -99.5  | -159.0 | -84.6 | $\psi_9$ | 6.6   | 165.6 | 69.3  |      | 2.00 |
|   | $\varphi_1$ | -65.0  | -158.9 | -82.3 | $\psi_1$ | -25.5 | 166.4 | 69.6  | 2.04 | 1.98 |
|   | $\varphi_2$ | -58.5  | -159.1 | -83.5 | $\psi_2$ | -23.0 | 167.1 | 66.1  | 2.11 | 1.96 |
|   | $\varphi_3$ | -59.1  | -158.1 | -83.8 | $\psi_3$ | -30.6 | 166.1 | 67.1  | 2.21 | 1.96 |
| AcAla <sub>4</sub> PheAla <sub>4</sub> NHMe | $\varphi_4$ | -68.4  | -161.0 | -83.4 | $\psi_4$ | -29.5 | 168.2 | 66.0  | 2.21 | 1.95 |
|   | $\varphi_5$ | -72.4  | -158.1 | -84.8 | $\psi_5$ | -45.2 | 155.7 | 73.2  | 2.17 | 2.00 |
|   | $\varphi_6$ | -57.9  | -161.2 | -85.4 | $\psi_6$ | -32.4 | 163.3 | 66.3  | 2.14 | 1.98 |
|   | $\varphi_7$ | -59.8  | -159.2 | -83.5 | $\psi_7$ | -25.6 | 166.4 | 66.7  | 2.08 | 1.96 |
|   | $\varphi_8$ | -70.0  | -159.4 | -84.5 | $\psi_8$ | -9.2  | 167.3 | 66.4  | 2.12 | 1.99 |
|   | $\varphi_9$ | -101.8 | -159.0 | -84.6 | $\psi_9$ | 9.8   | 165.2 | 69.4  |      | 2.00 |
|   | $\varphi_1$ | -65.2  | -158.5 | -82.3 | $\psi_1$ | -25.6 | 166.5 | 69.1  | 2.03 | 1.97 |
|   | $\varphi_2$ | -58.2  | -159.5 | -83.6 | $\psi_2$ | -23.5 | 167.3 | 66.5  | 2.13 | 1.96 |
|   | $\varphi_3$ | -57.9  | -158.4 | -83.8 | $\psi_3$ | -31.5 | 166.8 | 68.1  | 2.17 | 1.96 |
|   | $\varphi_4$ | -65.7  | -160.0 | -83.1 | $\psi_4$ | -33.0 | 168.0 | 65.6  | 2.21 | 1.93 |
| AcAla <sub>4</sub> CysAla <sub>4</sub> NHMe | $\varphi_5$ | -72.7  | -159.9 | -84.7 | $\psi_5$ | -39.3 | 164.4 | 68.2  | 2.21 | 1.97 |
|   | $\varphi_6$ | -60.8  | -162.4 | -84.6 | $\psi_6$ | -31.7 | 162.3 | 66.3  | 2.25 | 1.99 |
|   | $\varphi_7$ | -60.9  | -159.8 | -84.2 | $\psi_7$ | -25.3 | 167.3 | 66.6  | 2.09 | 1.97 |
|   | $\varphi_8$ | -71.5  | -159.4 | -84.6 | $\psi_8$ | -6.9  | 167.0 | 67.6  | 2.16 | 2.00 |

|   |                |        |        |       |             |       |       |      |      |      |
|---|----------------|--------|--------|-------|-------------|-------|-------|------|------|------|
|   | $\varphi_9$    | -101.7 | -159.5 | -84.7 | $\psi_9$    | 8.9   | 166.0 | 69.0 |      | 2.00 |
| AcAla <sub>4</sub> MetAla <sub>4</sub> NHMe | $\varphi_1$    | -65.5  | -158.5 | -82.2 | $\psi_1$    | -24.9 | 167.1 | 69.3 | 2.04 | 1.98 |
|   | $\varphi_2$    | -58.9  | -158.2 | -83.6 | $\psi_2$    | -21.8 | 166.3 | 66.9 | 2.13 | 1.97 |
|   | $\varphi_3$    | -58.7  | -159.0 | -83.9 | $\psi_3$    | -28.4 | 167.1 | 67.0 | 2.15 | 1.96 |
|   | $\varphi_4$    | -66.5  | -158.2 | -83.0 | $\psi_4$    | -32.2 | 167.3 | 68.1 | 2.20 | 1.95 |
|   | $\varphi_5$    | -74.4  | -157.0 | -84.9 | $\psi_5$    | -38.5 | 152.6 | 72.3 | 2.20 | 2.00 |
|   | $\varphi_6$    | -61.6  | -155.7 | -84.3 | $\psi_6$    | -32.3 | 170.4 | 69.8 | 2.16 | 1.99 |
|   | $\varphi_7$    | -60.1  | -158.6 | -82.8 | $\psi_7$    | -25.4 | 167.7 | 66.8 | 2.09 | 1.95 |
|   | $\varphi_8$    | -72.9  | -159.3 | -84.6 | $\psi_8$    | -5.1  | 168.3 | 66.8 | 2.15 | 1.99 |
|   | $\varphi_9$    | -102.4 | -157.8 | -84.6 | $\psi_9$    | 9.3   | 165.6 | 69.2 |      | 2.00 |
|   | $\varphi_1$    | -62.7  | --     | -82.3 | $\psi_1$    | -31.4 | --    | 69.0 | 2.07 | 1.97 |
| AcAla <sub>4</sub> HidAla <sub>4</sub> NHMe | $\varphi_2$    | -58.1  | --     | -83.7 | $\psi_2$    | -32.6 | --    | 66.2 | 2.38 | 1.96 |
|   | $\varphi_3$    | -65.6  | --     | -83.7 | $\psi_3$    | -40.0 | --    | 67.5 | 2.12 | 1.95 |
|   | $\varphi_4$    | -64.1  | --     | -83.2 | $\psi_4$    | -40.7 | --    | 67.8 | 2.18 | 1.93 |
|   | $\varphi_5$    | -63.6  | --     | -84.7 | $\psi_5$    | -36.4 | --    | 63.3 | 2.51 | 1.91 |
|   | $\varphi_6$    | -68.8  | --     | -85.7 | $\psi_6$    | -39.2 | --    | 68.8 | 2.13 | 2.04 |
|   | $\varphi_7$    | -61.8  | --     | -83.7 | $\psi_7$    | -29.1 | --    | 66.9 | 2.11 | 1.98 |
|   | $\varphi_8$    | -68.4  | --     | -84.6 | $\psi_8$    | -9.9  | --    | 66.9 |      | 2.00 |
|   | $\varphi_9$    | -99.8  | --     | -84.8 | $\psi_9$    | 7.6   | --    | 69.3 |      | 2.01 |
|   | $\varphi_1$    | -63.7  | -159.0 | -82.3 | $\psi_1$    | -29.2 | 165.9 | 69.2 | 2.07 | 1.98 |
|   | $\varphi_2$    | -57.9  | -159.4 | -83.8 | $\psi_2$    | -30.1 | 167.3 | 66.5 | 2.25 | 1.97 |
| AcAla <sub>4</sub> HieAla <sub>4</sub> NHMe | $\varphi_3$    | -66.9  | -158.1 | -83.8 | $\psi_3$    | -37.5 | 166.0 | 67.9 | 2.28 | 1.97 |
|   | $\varphi_4$    | -66.0  | -161.4 | -83.1 | $\psi_4$    | -39.8 | 168.3 | 69.1 | 2.06 | 1.96 |
|   | $\varphi_5$    | -59.8  | -158.0 | -84.3 | $\psi_5$    | -46.2 | 156.4 | 71.1 | 2.25 | 1.96 |
|   | $\varphi_6$    | -61.5  | -157.4 | -84.7 | $\psi_6$    | -36.6 | 168.8 | 64.7 | 2.32 | 1.95 |
|   | $\varphi_7$    | -61.5  | -158.9 | -84.2 | $\psi_7$    | -26.5 | 166.2 | 66.8 | 2.10 | 1.97 |
|   | $\varphi_8$    | -71.1  | -159.2 | -84.2 | $\psi_8$    | -6.9  | 167.2 | 66.4 | 2.13 | 1.98 |
|   | $\varphi_9$    | -100.5 | -159.1 | -84.9 | $\psi_9$    | 8.0   | 165.3 | 69.7 |      | 2.01 |
|   | $\varphi_1$    | -63.9  | -158.5 | -82.3 | $\psi_1$    | -29.1 | 167.2 | 69.1 | 2.07 | 1.97 |
|   | $\varphi_2$    | -57.4  | -158.2 | -83.8 | $\psi_2$    | -31.0 | 166.3 | 66.5 | 2.27 | 1.97 |
|   | $\varphi_3$    | -67.2  | -159.1 | -83.9 | $\psi_3$    | -36.7 | 167.2 | 67.2 | 2.32 | 1.96 |
| AcAla <sub>4</sub> TrpAla <sub>4</sub> NHMe | $\varphi_4$    | -66.6  | -158.1 | -83.3 | $\psi_4$    | -39.6 | 167.6 | 66.8 | 2.07 | 1.95 |
|   | $\varphi_5$    | -60.4  | -159.3 | -83.8 | $\psi_5$    | -46.9 | 146.3 | 78.8 | 2.21 | 2.02 |
|   | $\varphi_6$    | -60.8  | -159.7 | -84.7 | $\psi_6$    | -37.5 | 168.5 | 67.1 | 2.32 | 1.96 |
|   | $\varphi_7$    | -60.7  | -161.8 | -83.6 | $\psi_7$    | -28.2 | 166.1 | 65.6 | 2.09 | 1.96 |
|   | $\varphi_8$    | -72.6  | -158.1 | -84.3 | $\psi_8$    | -5.3  | 165.6 | 66.8 | 2.14 | 1.99 |
|   | $\varphi_9$    | -102.0 | -159.6 | -84.7 | $\psi_9$    | 8.7   | 165.1 | 69.3 |      | 2.00 |
|   | $\varphi_1$    | -63.4  | -158.5 | -82.1 | $\psi_1$    | -29.6 | 167.8 | 69.6 | 2.05 | 1.98 |
|   | $\varphi_2$    | -56.5  | -157.9 | -83.6 | $\psi_2$    | -32.3 | 167.2 | 66.8 | 2.24 | 1.96 |
|   | $\varphi_3$    | -65.5  | -159.2 | -83.7 | $\psi_3$    | -36.2 | 167.5 | 66.7 | 2.38 | 1.96 |
|   | $\varphi_4$    | -66.0  | -159.0 | -83.8 | $\psi_4$    | -40.1 | 168.3 | 67.7 | 2.08 | 1.96 |
| AcAla <sub>13</sub> NH <sub>2</sub>         | $\varphi_5$    | -61.1  | -158.3 | -83.9 | $\psi_5$    | -43.1 | 167.4 | 65.7 | 2.12 | 1.94 |
|   | $\varphi_6$    | -61.5  | -160.5 | -83.5 | $\psi_6$    | -42.9 | 168.3 | 66.4 | 2.10 | 1.95 |
|   | $\varphi_7$    | -61.3  | -158.2 | -83.9 | $\psi_7$    | -43.0 | 166.8 | 67.1 | 2.09 | 1.95 |
|   | $\varphi_8$    | -61.8  | -160.9 | -83.6 | $\psi_8$    | -42.0 | 168.7 | 66.2 | 2.12 | 1.94 |
|   | $\varphi_9$    | -61.1  | -158.2 | -84.1 | $\psi_9$    | -42.3 | 166.9 | 67.0 | 2.12 | 1.96 |
|   | $\varphi_{10}$ | -65.4  | -160.8 | -83.9 | $\psi_{10}$ | -36.2 | 168.2 | 66.1 | 2.28 | 1.95 |
|   | $\varphi_{11}$ | -67.8  | -158.1 | -83.8 | $\psi_{11}$ | -31.2 | 166.8 | 67.1 | 2.02 | 1.96 |
|   | $\varphi_{12}$ | -94.1  | -159.5 | -84.3 | $\psi_{12}$ | -23.6 | 167.5 | 66.5 | 2.13 | 1.98 |
|   | $\varphi_{13}$ | -139.4 | -158.3 | -83.6 | $\psi_{13}$ | 11.4  | 168.4 | 71.6 |      | 2.00 |
|   | $\varphi_1$    | -64.6  | -158.2 | -82.0 | $\psi_1$    | -24.7 | 166.3 | 70.2 | 2.06 | 1.98 |
|   | $\varphi_2$    | -53.7  | -158.6 | -83.4 | $\psi_2$    | -28.1 | 167.2 | 66.4 | 2.15 | 1.95 |

|                |        |        |       |             |       |       |      |      |      |
|----------------|--------|--------|-------|-------------|-------|-------|------|------|------|
| $\varphi_3$    | -66.1  | -154.9 | -85.2 | $\psi_3$    | -25.1 | 157.3 | 67.2 | 2.15 | 1.95 |
| $\varphi_4$    | -69.6  | -141.0 | -84.1 | $\psi_4$    | -25.9 | 173.5 | 65.2 | 2.09 | 1.95 |
| $\varphi_5$    | -78.9  | -157.8 | -84.1 | $\psi_5$    | -44.1 | 168.4 | 67.4 | 2.05 | 1.97 |
| $\varphi_6$    | -56.3  | -158.3 | -83.3 | $\psi_6$    | -38.4 | 169.0 | 67.1 | 2.38 | 1.95 |
| $\varphi_7$    | -61.5  | -158.1 | -83.7 | $\psi_7$    | -36.3 | 168.5 | 66.3 | 2.24 | 1.94 |
| $\varphi_8$    | -66.4  | -155.6 | -84.3 | $\psi_8$    | -42.0 | 158.3 | 67.0 | 2.04 | 1.93 |
| $\varphi_9$    | -61.8  | -140.2 | -84.6 | $\psi_9$    | -43.3 | 171.1 | 65.6 | 2.14 | 1.96 |
| $\varphi_{10}$ | -63.5  | -160.4 | -83.9 | $\psi_{10}$ | -34.3 | 167.5 | 66.3 | 1.98 | 1.96 |
| $\varphi_{11}$ | -58.5  | -159.0 | -83.9 | $\psi_{11}$ | -30.0 | 167.8 | 66.1 | 2.04 | 1.96 |
| $\varphi_{12}$ | -68.4  | -159.0 | -83.7 | $\psi_{12}$ | -15.6 | 167.1 | 65.1 | 2.13 | 1.94 |
| $\varphi_{13}$ | -78.4  | -156.9 | -84.9 | $\psi_{13}$ | -10.7 | 158.6 | 67.5 |      | 1.96 |
| $\varphi_{14}$ | -106.0 | -144.3 | -84.7 | $\psi_{14}$ | -32.4 | 171.9 | 64.9 |      | 1.98 |
| $\varphi_{15}$ | -134.2 | -159.3 | -83.9 | $\psi_{15}$ | 9.5   | 168.4 | 71.4 |      | 2.01 |

In Table S3,  $R(O \cdots H)$  is the hydrogen bond length in Å. The 10-membered-ring hydrogen bonds formed between backbone O and H atoms are denoted by white background. The 13-membered-ring hydrogen bonds formed between two backbone atoms are denoted by yellow background. It can be seen from Table S3 that there exist both 10-membered-ring and 13-membered-ring hydrogen bonds for the helix conformers, indicating that these helices are neither pure  $\alpha$ -helices nor pure  $\beta_{10}$ -helices..



**Figure S4.** The hydrogen-bonded dimers. All distances are in Å.

**Table S4.** Physical components of the interaction energy (*IE*) for eight hydrogen-bonded dimers.

| Dimers                        | AMBER99sb |                          |                         | AMOEBAbio18 |                          |                         | This work |                          |                         |
|-------------------------------|-----------|--------------------------|-------------------------|-------------|--------------------------|-------------------------|-----------|--------------------------|-------------------------|
|                               | <i>IE</i> | <i>IE<sub>elec</sub></i> | <i>IE<sub>vdw</sub></i> | <i>IE</i>   | <i>IE<sub>elec</sub></i> | <i>IE<sub>vdw</sub></i> | <i>IE</i> | <i>IE<sub>elec</sub></i> | <i>IE<sub>vdw</sub></i> |
| antiparallel Gly tripeptide   | -21.77    | -18.37                   | -3.40                   | -21.54      | -22.84                   | 1.29                    | -22.62    | -18.86                   | -3.76                   |
| parallel Gly tripeptide       | -15.31    | -14.78                   | -0.53                   | -15.61      | -15.34                   | -0.27                   | -17.25    | -15.30                   | -1.95                   |
| antiparallel Gly pentapeptide | -36.08    | -29.51                   | -6.57                   | -36.10      | -37.64                   | 1.54                    | -36.26    | -29.38                   | -6.88                   |
| parallel Gly pentapeptide     | -25.34    | -23.70                   | -1.63                   | -26.42      | -25.32                   | -1.10                   | -27.30    | -23.84                   | -3.46                   |
| antiparallel Ala tripeptide   | -23.34    | -19.93                   | -3.41                   | -23.10      | -26.32                   | 3.22                    | -24.61    | -21.22                   | -3.39                   |
| parallel Ala tripeptide       | -22.92    | -19.49                   | -3.44                   | -21.17      | -23.79                   | 2.62                    | -24.88    | -21.28                   | -3.60                   |
| antiparallel Ala tetrapeptide | -29.12    | -23.59                   | -5.53                   | -29.60      | -32.41                   | 2.81                    | -30.12    | -24.66                   | -5.46                   |
| parallel Ala tetrapeptide     | -30.20    | -25.78                   | -4.42                   | -28.47      | -31.86                   | 3.39                    | -32.46    | -27.61                   | -4.86                   |

*IE<sub>elec</sub>* represents the electrostatic interaction energy, *IE<sub>vdw</sub>* represents the van der Waals interaction energy. All energies are in kcal/mol.

**Table S5.** Cartesian coordinates in angstroms for Cluster A and B, 28 glycine tetrapeptide conformers, 51 alanine tetrapeptide conformers, AcAla<sub>4</sub>XAla<sub>4</sub>NHMe (X=Val, Ile, Leu, Asn, Gln, Ser, Thr, Phe, Cys, Met, His, His, Trp and Tyr), AcAla<sub>13</sub>NH<sub>2</sub>, Ac(Ala<sub>2</sub>GlnAla<sub>2</sub>)<sub>3</sub>NH<sub>2</sub> and hydrogen-bonded dimers.

|   |           |            |           | Cluster A |           |            |           |
|---|-----------|------------|-----------|-----------|-----------|------------|-----------|
| H | 7.428125  | -5.736182  | 2.448523  | C         | 6.302080  | -7.386495  | -1.169027 |
| O | 6.930235  | -9.082793  | 2.721394  | C         | 7.321943  | -6.638735  | -0.277317 |
| H | 6.840812  | -8.296750  | 2.202163  | N         | 8.177252  | -5.779331  | -0.879713 |
| H | 7.852764  | -9.244880  | 2.518455  | O         | 7.251651  | -6.898668  | 0.955201  |
| O | 12.413877 | -4.817676  | 4.379024  | C         | 9.170686  | -4.965645  | -0.101378 |
| H | 13.027583 | -4.857954  | 3.596039  | C         | 10.403180 | -5.652339  | 0.559308  |
| H | 12.916836 | -4.286894  | 5.067079  | N         | 10.248867 | -6.938369  | 0.823622  |
| O | 9.694455  | -4.479460  | 5.203573  | O         | 11.521173 | -5.051384  | 0.665163  |
| H | 9.158254  | -4.881459  | 4.504486  | C         | 11.148831 | -7.712026  | 1.681810  |
| H | 10.579847 | -4.773380  | 4.927083  | C         | 10.784546 | -9.153755  | 1.547068  |
| O | 8.599703  | -5.173472  | -4.408102 | N         | 11.784927 | -9.995402  | 1.171062  |
| H | 7.824540  | -4.742767  | -4.847238 | O         | 9.645513  | -9.477291  | 1.758791  |
| H | 8.474138  | -6.079500  | -4.771272 | C         | 11.830621 | -11.458715 | 1.471327  |
| O | 8.054009  | -2.945469  | 3.230178  | C         | 11.000873 | -12.245001 | 0.384262  |
| H | 7.894160  | -2.102845  | 3.754876  | N         | 10.612006 | -11.613164 | -0.674912 |
| H | 8.340329  | -2.646981  | 2.395533  | O         | 10.462752 | -13.315189 | 0.600634  |
| O | 8.570575  | -7.731266  | -5.197466 | H         | 6.045551  | -8.275584  | -0.633369 |
| H | 7.654327  | -7.922488  | -5.420649 | H         | 6.591146  | -7.684718  | -2.156745 |
| H | 8.712941  | -8.275055  | -4.416252 | H         | 5.502663  | -6.682782  | -1.392112 |
| O | 12.377161 | -9.595068  | 4.859796  | H         | 8.122831  | -5.604404  | -1.898743 |
| H | 12.405215 | -8.697690  | 5.251341  | H         | 9.561310  | -4.212686  | -0.799625 |
| H | 11.401476 | -9.693684  | 4.794373  | H         | 8.713655  | -4.503766  | 0.711170  |
| O | 4.661790  | -5.969657  | 3.933004  | H         | 9.425428  | -7.421759  | 0.518542  |
| H | 5.661536  | -6.048906  | 3.836576  | H         | 12.213445 | -7.529663  | 1.396897  |
| H | 4.572207  | -5.024243  | 4.072036  | H         | 10.982484 | -7.386537  | 2.729375  |
| O | 10.652834 | -1.949144  | -0.827218 | H         | 12.687644 | -9.596204  | 0.903637  |
| H | 9.745921  | -1.784004  | -0.532473 | H         | 12.807709 | -11.934415 | 1.445797  |
| H | 10.476395 | -2.160406  | -1.723586 | H         | 11.381023 | -11.638442 | 2.418879  |
| O | 13.787652 | -10.292543 | 7.173515  | H         | 10.865320 | -10.609670 | -0.839404 |
| H | 13.293494 | -9.570550  | 7.474343  | H         | 9.917002  | -12.037994 | -1.243737 |
| H | 13.442597 | -10.469542 | 6.279317  | O         | 11.104209 | -5.319346  | -3.440043 |
| O | 12.894899 | -11.784639 | -3.455633 | H         | 10.244940 | -5.279256  | -3.883518 |
| H | 13.672856 | -11.749215 | -2.954780 | H         | 11.728181 | -5.405517  | -4.193522 |
| H | 13.219766 | -12.106971 | -4.344629 | O         | 13.504079 | -13.441606 | -1.062576 |
| O | 6.697679  | -8.130031  | 5.476412  | H         | 13.202344 | -13.859469 | -0.282367 |
| H | 6.465719  | -7.336212  | 4.979129  | H         | 13.509311 | -12.507758 | -0.918408 |
| H | 6.289182  | -8.824942  | 4.916137  | O         | 8.465976  | -13.241327 | 2.738740  |
| O | 12.452970 | -6.935420  | -1.948327 | H         | 9.216123  | -13.409470 | 2.136565  |
| H | 13.324602 | -6.546706  | -2.095047 | H         | 8.001368  | -14.069650 | 2.812919  |
| H | 11.870047 | -6.337453  | -2.421172 | O         | 11.428506 | -7.104432  | 5.731743  |
| O | 4.768359  | -3.904768  | 1.543483  | H         | 11.710004 | -6.387488  | 5.196702  |
| H | 5.033198  | -3.041879  | 1.196948  | H         | 10.998504 | -6.691315  | 6.536577  |
| H | 4.650383  | -3.734135  | 2.513353  | O         | 6.039739  | -8.310659  | -5.000306 |
| O | 6.232950  | -12.094996 | 2.034114  | H         | 5.561625  | -7.539509  | -5.353748 |
| H | 7.089479  | -12.533939 | 2.296277  | H         | 5.640537  | -8.282376  | -4.121546 |
| H | 6.105209  | -12.449960 | 1.159826  | O         | 7.451729  | -5.614892  | 3.386289  |
| O | 8.158667  | -12.101521 | -2.402201 | H         | 7.514444  | -4.615983  | 3.420495  |
| H | 7.402036  | -12.658624 | -2.429643 |           |           |            |           |
| H | 7.902242  | -11.556860 | -1.670815 |           |           |            |           |

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|           |           |           |           |   |           |            |           |
|-----------|-----------|-----------|-----------|---|-----------|------------|-----------|
| H         | 10.867554 | 0.199428  | 5.034044  | O | 9.521392  | -2.352520  | -3.365683 |
| H         | 11.385114 | 1.888062  | 5.018278  | H | 9.555928  | -3.305505  | -3.535092 |
| O         | 11.315079 | -3.592515 | -1.366748 | H | 9.043118  | -1.963659  | -4.098993 |
| H         | 10.721377 | -3.676065 | -0.585791 | O | 7.641703  | -10.840596 | -0.150839 |
| H         | 10.959981 | -2.833011 | -1.834290 | H | 6.918301  | -10.247130 | 0.223366  |
| O         | 3.113263  | 4.558958  | 2.031779  | H | 8.204502  | -10.993592 | 0.617016  |
| H         | 3.945708  | 4.998747  | 2.023437  | O | 11.803533 | -9.509215  | -1.867828 |
| H         | 3.123287  | 3.914944  | 1.305239  | H | 11.974662 | -8.540258  | -1.923447 |
| O         | 7.545300  | -1.606277 | 6.408733  | H | 12.356749 | -9.826632  | -2.602737 |
| H         | 7.034466  | -1.318159 | 5.588899  | O | 13.428031 | -3.234547  | -0.740111 |
| H         | 8.491407  | -1.569348 | 6.114493  | H | 13.103840 | -3.913041  | -0.160066 |
| O         | 4.993031  | 8.955975  | -3.555734 | H | 12.667971 | -2.676579  | -1.045895 |
| H         | 5.421037  | 8.630045  | -4.338141 | O | 8.927948  | -9.601405  | -3.186161 |
| H         | 5.791458  | 9.285748  | -3.138565 | H | 9.612526  | -9.693578  | -2.557523 |
| O         | 6.097576  | -0.663939 | 4.473505  | H | 8.404236  | -10.393870 | -3.013173 |
| H         | 5.182686  | -1.117884 | 4.410736  | O | 11.124517 | -13.791954 | -3.333548 |
| H         | 5.796220  | 0.222166  | 4.569134  | H | 11.417116 | -12.976745 | -2.952904 |
| O         | 10.736773 | 5.134732  | -1.009684 | H | 10.894732 | -13.513032 | -4.238652 |
| H         | 10.015237 | 4.543790  | -1.290519 | O | 10.320041 | -12.043584 | 4.469978  |
| H         | 10.434791 | 5.998500  | -1.305867 | H | 10.097326 | -12.097727 | 5.412137  |
| O         | 10.794023 | 4.098817  | 5.160318  | H | 9.399218  | -12.161576 | 4.181204  |
| H         | 11.286016 | 4.904158  | 5.314705  | O | 5.143562  | -4.011618  | -1.380518 |
| H         | 10.355045 | 4.321028  | 4.284609  | H | 4.587826  | -3.915217  | -0.602964 |
| O         | 5.535123  | -0.446433 | 0.496344  | H | 5.925908  | -3.531303  | -1.121910 |
| <hr/>     |           |           |           |   |           |            |           |
| Cluster B |           |           |           |   |           |            |           |
| C         | 6.355813  | 7.275061  | -0.530067 |   |           |            |           |
| C         | 6.213335  | 5.906639  | -0.056199 |   |           |            |           |
| N         | 6.228787  | 4.979980  | -1.023214 |   |           |            |           |
| O         | 5.877260  | 5.666779  | 1.105990  |   |           |            |           |
| C         | 6.350798  | 3.524820  | -0.868046 |   |           |            |           |
| C         | 7.728901  | 2.796785  | -1.085297 |   |           |            |           |
| N         | 7.732334  | 1.506967  | -0.708224 |   |           |            |           |
| O         | 8.692941  | 3.426604  | -1.528569 |   |           |            |           |
| C         | 8.973662  | 0.735443  | -0.546176 |   |           |            |           |
| C         | 9.254637  | 0.320685  | 0.916655  |   |           |            |           |
| N         | 10.512865 | -0.067613 | 1.198251  |   |           |            |           |
| O         | 8.333873  | 0.362452  | 1.748433  |   |           |            |           |
| C         | 10.990427 | -0.244781 | 2.523580  |   |           |            |           |
| C         | 11.297086 | 1.054485  | 3.251610  |   |           |            |           |
| N         | 11.119381 | 1.003125  | 4.538479  |   |           |            |           |
| O         | 11.531900 | 2.048363  | 2.585299  |   |           |            |           |
| H         | 6.280536  | 7.938035  | 0.318556  |   |           |            |           |
| H         | 5.674128  | 7.434139  | -1.388746 |   |           |            |           |
| H         | 7.356365  | 7.408882  | -0.960835 |   |           |            |           |
| H         | 6.448542  | 5.325314  | -1.958454 |   |           |            |           |
| H         | 5.837908  | 3.307043  | 0.036586  |   |           |            |           |
| H         | 5.699021  | 2.996653  | -1.542339 |   |           |            |           |
| H         | 6.855499  | 1.215608  | -0.379579 |   |           |            |           |
| H         | 8.932435  | -0.092485 | -1.194091 |   |           |            |           |
| H         | 9.788224  | 1.303864  | -0.955183 |   |           |            |           |
| H         | 11.208844 | -0.093321 | 0.449357  |   |           |            |           |
| H         | 10.217148 | -0.705045 | 3.068693  |   |           |            |           |
| H         | 11.786444 | -0.941023 | 2.562816  |   |           |            |           |

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|                                |           |           |           |                                |           |           |           |
|--------------------------------|-----------|-----------|-----------|--------------------------------|-----------|-----------|-----------|
| N                              | 0.152000  | 1.009000  | 2.451000  | O                              | 2.702832  | 3.656984  | -2.297571 |
| H                              | 0.947000  | 1.602000  | 2.342000  | H                              | 3.075989  | 4.511471  | -2.617015 |
| C                              | -1.073000 | 1.584000  | 2.971000  | H                              | 1.751364  | 3.646194  | -2.469734 |
| H                              | -1.722000 | 0.778000  | 3.286000  | O                              | 2.648545  | 2.530973  | 0.162011  |
| H                              | -0.842000 | 2.211000  | 3.819000  | H                              | 2.563561  | 1.596874  | -0.001688 |
| C                              | -1.783000 | 2.462000  | 1.947000  | H                              | 2.714836  | 2.968796  | -0.707284 |
| O                              | -1.937000 | 3.643000  | 2.136000  | O                              | 10.064997 | 2.098539  | -3.454155 |
| N                              | -2.192000 | 1.838000  | 0.827000  | H                              | 9.598025  | 2.654989  | -2.757979 |
| H                              | -2.021000 | 0.860000  | 0.733000  | H                              | 9.355308  | 1.523914  | -3.732647 |
| C                              | -2.722000 | 2.575000  | -0.304000 | O                              | 7.346761  | 3.991353  | 2.638074  |
| H                              | -3.273000 | 1.894000  | -0.936000 | H                              | 6.682933  | 3.341356  | 2.497000  |
| H                              | -3.383000 | 3.351000  | 0.055000  | H                              | 6.962068  | 4.779361  | 2.238042  |
| C                              | -1.583000 | 3.160000  | -1.138000 | O                              | 12.651494 | -3.213804 | 1.884144  |
| O                              | -1.168000 | 2.581000  | -2.111000 | H                              | 13.459010 | -3.137704 | 2.473945  |
| N                              | -1.085000 | 4.323000  | -0.689000 | H                              | 12.843142 | -2.456582 | 1.335297  |
| H                              | -1.379000 | 4.625000  | 0.214000  | O                              | 10.024563 | -1.873309 | 5.388304  |
| C                              | 0.112000  | 4.908000  | -1.258000 | H                              | 10.309292 | -2.321688 | 4.553274  |
| H                              | 0.076000  | 4.826000  | -2.334000 | H                              | 10.887503 | -1.950199 | 5.859498  |
| H                              | 0.152000  | 5.955000  | -0.986000 | O                              | 7.863533  | 0.318779  | -4.074117 |
| H                              | 1.010000  | 4.416000  | -0.898000 | H                              | 7.603964  | 0.770985  | -4.933744 |
| <b>Glycine tetrapeptide_02</b> |           |           |           | H                              | 8.438106  | -0.473501 | -4.316939 |
| H                              | 3.870000  | 2.470000  | -0.268000 | O                              | 10.078172 | -1.592151 | -3.567632 |
| C                              | 3.736000  | 1.432000  | 0.018000  | H                              | 10.668849 | -0.948181 | -3.073829 |
| H                              | 3.925000  | 0.793000  | -0.836000 | H                              | 10.613301 | -1.782454 | -4.354365 |
| H                              | 4.444000  | 1.206000  | 0.805000  | O                              | 9.928119  | 7.663160  | -2.145275 |
| C                              | 2.345000  | 1.273000  | 0.571000  | H                              | 9.212567  | 8.262818  | -1.970629 |
| O                              | 2.027000  | 1.729000  | 1.648000  | H                              | 10.637394 | 8.129479  | -2.545957 |
| N                              | 1.449000  | 0.614000  | -0.194000 | O                              | 5.999184  | 1.549003  | 2.103643  |
| H                              | 1.677000  | 0.410000  | -1.139000 | H                              | 5.587381  | 0.682085  | 1.882814  |
| C                              | 0.062000  | 0.519000  | 0.210000  | H                              | 6.938766  | 1.299873  | 2.087769  |
| H                              | -0.435000 | -0.188000 | -0.441000 | O                              | 2.797888  | 9.286272  | -0.281346 |
| H                              | 0.012000  | 0.155000  | 1.227000  | H                              | 3.471538  | 9.276860  | 0.462598  |
| C                              | -0.638000 | 1.864000  | 0.045000  | H                              | 2.292796  | 8.513215  | 0.001342  |
| O                              | -0.875000 | 2.301000  | -1.046000 | O                              | 4.420023  | 2.101187  | -3.439751 |
| N                              | -0.942000 | 2.521000  | 1.190000  | H                              | 3.780304  | 2.851833  | -3.350258 |
| H                              | -0.549000 | 2.174000  | 2.035000  | H                              | 4.244977  | 1.789408  | -4.328720 |
| C                              | -1.411000 | 3.884000  | 1.151000  | O                              | 13.592272 | -0.157390 | 6.481155  |
| H                              | -2.101000 | 4.002000  | 0.330000  | H                              | 14.377490 | 0.029687  | 5.866942  |
| H                              | -1.939000 | 4.110000  | 2.069000  | H                              | 13.200698 | 0.751969  | 6.599603  |
| C                              | -0.336000 | 4.951000  | 0.972000  | <b>Glycine tetrapeptide_01</b> |           |           |           |
| O                              | -0.658000 | 6.064000  | 0.636000  | H                              | 1.154000  | 1.768000  | -2.273000 |
| N                              | 0.932000  | 4.603000  | 1.245000  | C                              | 2.117000  | 1.386000  | -1.949000 |
| H                              | 1.166000  | 3.659000  | 1.462000  | H                              | 2.368000  | 0.512000  | -2.538000 |
| C                              | 2.026000  | 5.543000  | 1.113000  | H                              | 2.865000  | 2.153000  | -2.098000 |
| H                              | 1.688000  | 6.524000  | 1.420000  | C                              | 2.038000  | 1.075000  | -0.476000 |
| H                              | 2.836000  | 5.221000  | 1.751000  | O                              | 2.277000  | 1.893000  | 0.377000  |
| C                              | 2.558000  | 5.575000  | -0.318000 | N                              | 1.664000  | -0.188000 | -0.156000 |
| O                              | 3.559000  | 4.977000  | -0.625000 | H                              | 1.333000  | -0.795000 | -0.870000 |
| N                              | 1.827000  | 6.295000  | -1.184000 | C                              | 1.506000  | -0.598000 | 1.222000  |
| H                              | 0.939000  | 6.628000  | -0.875000 | H                              | 1.532000  | -1.677000 | 1.270000  |
| C                              | 2.132000  | 6.305000  | -2.598000 | H                              | 2.323000  | -0.194000 | 1.803000  |
| H                              | 3.194000  | 6.445000  | -2.741000 | C                              | 0.157000  | -0.156000 | 1.776000  |
| H                              | 1.840000  | 5.378000  | -3.083000 | O                              | -0.836000 | -0.815000 | 1.588000  |

|                         |           |           |           |                         |                         |           |           |           |
|-------------------------|-----------|-----------|-----------|-------------------------|-------------------------|-----------|-----------|-----------|
| H                       | -2.442000 | -0.664000 | 1.456000  |                         | H                       | 1.601000  | 7.125000  | -3.064000 |
| H                       | -2.106000 | -2.092000 | 0.477000  | Glycine tetrapeptide_03 | H                       | 1.825000  | 3.410000  | -0.559000 |
| C                       | -1.936000 | -2.361000 | 2.598000  |                         | C                       | 1.815000  | 2.458000  | -1.071000 |
| O                       | -2.600000 | -1.974000 | 3.530000  |                         | H                       | 0.909000  | 2.358000  | -1.657000 |
| N                       | -1.305000 | -3.545000 | 2.584000  |                         | H                       | 2.668000  | 2.427000  | -1.742000 |
| H                       | -0.737000 | -3.769000 | 1.795000  |                         | C                       | 1.972000  | 1.355000  | -0.048000 |
| C                       | -1.399000 | -4.488000 | 3.681000  |                         | O                       | 2.665000  | 1.484000  | 0.923000  |
| H                       | -2.406000 | -4.460000 | 4.079000  |                         | N                       | 1.280000  | 0.219000  | -0.318000 |
| H                       | -1.195000 | -5.478000 | 3.301000  |                         | H                       | 0.806000  | 0.133000  | -1.192000 |
| C                       | -0.395000 | -4.228000 | 4.802000  |                         | C                       | 1.453000  | -0.986000 | 0.456000  |
| O                       | 0.487000  | -5.009000 | 5.041000  |                         | H                       | 2.112000  | -1.695000 | -0.031000 |
| N                       | -0.579000 | -3.089000 | 5.492000  |                         | H                       | 1.883000  | -0.718000 | 1.412000  |
| H                       | -1.325000 | -2.485000 | 5.226000  |                         | C                       | 0.133000  | -1.706000 | 0.674000  |
| C                       | 0.325000  | -2.707000 | 6.554000  |                         | O                       | 0.043000  | -2.901000 | 0.547000  |
| H                       | 1.339000  | -2.599000 | 6.187000  |                         | N                       | -0.916000 | -0.930000 | 1.026000  |
| H                       | -0.004000 | -1.761000 | 6.962000  |                         | H                       | -0.801000 | 0.055000  | 0.942000  |
| H                       | 0.332000  | -3.448000 | 7.344000  |                         | C                       | -2.269000 | -1.449000 | 1.036000  |
| Glycine tetrapeptide_05 |           |           |           |                         | H                       | -2.244000 | -2.473000 | 1.383000  |
| H                       | -0.127000 | 2.409000  | -1.487000 |                         | H                       | -2.880000 | -0.854000 | 1.699000  |
| C                       | 0.952000  | 2.296000  | -1.517000 |                         | C                       | -2.858000 | -1.347000 | -0.364000 |
| H                       | 1.247000  | 2.143000  | -2.550000 |                         | O                       | -3.652000 | -0.497000 | -0.661000 |
| H                       | 1.417000  | 3.193000  | -1.136000 |                         | N                       | -2.372000 | -2.238000 | -1.266000 |
| C                       | 1.380000  | 1.127000  | -0.663000 |                         | H                       | -1.590000 | -2.791000 | -0.988000 |
| O                       | 2.115000  | 1.247000  | 0.283000  |                         | C                       | -2.532000 | -1.952000 | -2.663000 |
| N                       | 0.882000  | -0.079000 | -1.027000 |                         | H                       | -2.223000 | -2.817000 | -3.239000 |
| H                       | 0.235000  | -0.136000 | -1.779000 |                         | H                       | -3.575000 | -1.763000 | -2.877000 |
| C                       | 1.246000  | -1.300000 | -0.337000 |                         | C                       | -1.674000 | -0.769000 | -3.111000 |
| H                       | 1.093000  | -2.137000 | -1.002000 |                         | O                       | -0.651000 | -0.478000 | -2.542000 |
| H                       | 2.290000  | -1.247000 | -0.058000 |                         | N                       | -2.101000 | -0.126000 | -4.209000 |
| C                       | 0.378000  | -1.543000 | 0.893000  |                         | H                       | -3.023000 | -0.303000 | -4.534000 |
| O                       | -0.500000 | -2.371000 | 0.883000  |                         | C                       | -1.392000 | 1.021000  | -4.740000 |
| N                       | 0.652000  | -0.772000 | 1.959000  |                         | H                       | -0.337000 | 0.797000  | -4.810000 |
| H                       | 1.317000  | -0.036000 | 1.851000  |                         | H                       | -1.771000 | 1.239000  | -5.730000 |
| C                       | -0.088000 | -0.880000 | 3.199000  |                         | H                       | -1.520000 | 1.897000  | -4.112000 |
| H                       | -0.320000 | -1.922000 | 3.379000  |                         | Glycine tetrapeptide_04 |           |           |           |
| H                       | 0.526000  | -0.508000 | 4.006000  |                         | H                       | 0.581000  | 1.890000  | -2.433000 |
| C                       | -1.376000 | -0.063000 | 3.209000  |                         | C                       | 1.277000  | 2.217000  | -1.667000 |
| O                       | -1.524000 | 0.856000  | 3.978000  |                         | H                       | 2.263000  | 2.290000  | -2.115000 |
| N                       | -2.311000 | -0.436000 | 2.320000  |                         | H                       | 0.975000  | 3.184000  | -1.297000 |
| H                       | -2.138000 | -1.243000 | 1.761000  |                         | C                       | 1.287000  | 1.238000  | -0.517000 |
| C                       | -3.529000 | 0.321000  | 2.109000  |                         | O                       | 0.966000  | 1.549000  | 0.602000  |
| H                       | -3.306000 | 1.377000  | 2.207000  |                         | N                       | 1.672000  | -0.023000 | -0.822000 |
| H                       | -3.888000 | 0.126000  | 1.109000  |                         | H                       | 1.890000  | -0.253000 | -1.763000 |
| C                       | -4.668000 | -0.042000 | 3.059000  |                         | C                       | 1.805000  | -1.056000 | 0.185000  |
| O                       | -5.700000 | -0.495000 | 2.639000  |                         | H                       | 2.495000  | -1.806000 | -0.170000 |
| N                       | -4.441000 | 0.199000  | 4.361000  |                         | H                       | 2.194000  | -0.614000 | 1.093000  |
| H                       | -3.568000 | 0.596000  | 4.628000  |                         | C                       | 0.487000  | -1.766000 | 0.477000  |
| C                       | -5.442000 | -0.100000 | 5.360000  |                         | O                       | 0.308000  | -2.913000 | 0.147000  |
| H                       | -5.060000 | 0.191000  | 6.330000  |                         | N                       | -0.439000 | -1.033000 | 1.117000  |
| H                       | -6.360000 | 0.442000  | 5.166000  |                         | H                       | -0.217000 | -0.088000 | 1.348000  |
| H                       | -5.674000 | -1.159000 | 5.377000  |                         | C                       | -1.789000 | -1.514000 | 1.336000  |
| Glycine tetrapeptide_06 |           |           |           |                         |                         |           |           |           |

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|                                |           |           |           |                                |           |           |           |  |  |  |  |
|--------------------------------|-----------|-----------|-----------|--------------------------------|-----------|-----------|-----------|--|--|--|--|
| O                              | -1.779000 | -3.213000 | 3.722000  | H                              | 1.124000  | 3.354000  | -1.518000 |  |  |  |  |
| N                              | -2.411000 | -1.476000 | 2.447000  | C                              | 2.118000  | 2.976000  | -1.296000 |  |  |  |  |
| H                              | -2.312000 | -1.033000 | 1.560000  | H                              | 2.658000  | 2.876000  | -2.231000 |  |  |  |  |
| C                              | -3.312000 | -0.898000 | 3.427000  | H                              | 2.632000  | 3.675000  | -0.653000 |  |  |  |  |
| H                              | -4.025000 | -0.273000 | 2.910000  | C                              | 2.026000  | 1.645000  | -0.589000 |  |  |  |  |
| H                              | -3.839000 | -1.696000 | 3.934000  | O                              | 2.456000  | 1.471000  | 0.523000  |  |  |  |  |
| C                              | -2.607000 | -0.010000 | 4.451000  | N                              | 1.423000  | 0.652000  | -1.282000 |  |  |  |  |
| O                              | -2.791000 | 1.178000  | 4.473000  | H                              | 1.039000  | 0.846000  | -2.178000 |  |  |  |  |
| N                              | -1.792000 | -0.648000 | 5.308000  | C                              | 1.329000  | -0.702000 | -0.775000 |  |  |  |  |
| H                              | -1.687000 | -1.634000 | 5.223000  | H                              | 1.218000  | -1.382000 | -1.607000 |  |  |  |  |
| C                              | -1.055000 | 0.079000  | 6.319000  | H                              | 2.240000  | -0.940000 | -0.240000 |  |  |  |  |
| H                              | -0.341000 | 0.763000  | 5.873000  | C                              | 0.129000  | -0.921000 | 0.140000  |  |  |  |  |
| H                              | -1.725000 | 0.654000  | 6.946000  | O                              | -0.772000 | -1.657000 | -0.182000 |  |  |  |  |
| H                              | -0.521000 | -0.633000 | 6.935000  | N                              | 0.156000  | -0.258000 | 1.307000  |  |  |  |  |
| <b>Glycine tetrapeptide 08</b> |           |           |           |                                |           |           |           |  |  |  |  |
| H                              | 2.771000  | 1.901000  | -1.613000 | H                              | 0.945000  | 0.319000  | 1.507000  |  |  |  |  |
| C                              | 3.091000  | 1.283000  | -0.787000 | C                              | -0.963000 | -0.266000 | 2.227000  |  |  |  |  |
| H                              | 3.755000  | 0.506000  | -1.150000 | H                              | -0.922000 | 0.627000  | 2.833000  |  |  |  |  |
| H                              | 3.640000  | 1.889000  | -0.074000 | H                              | -1.888000 | -0.272000 | 1.662000  |  |  |  |  |
| C                              | 1.870000  | 0.679000  | -0.131000 | C                              | -0.952000 | -1.451000 | 3.187000  |  |  |  |  |
| O                              | 0.749000  | 0.934000  | -0.478000 | O                              | -0.825000 | -1.283000 | 4.376000  |  |  |  |  |
| N                              | 2.122000  | -0.175000 | 0.887000  | N                              | -1.107000 | -2.660000 | 2.626000  |  |  |  |  |
| H                              | 3.048000  | -0.408000 | 1.164000  | H                              | -1.239000 | -2.710000 | 1.638000  |  |  |  |  |
| C                              | 1.048000  | -0.820000 | 1.584000  | C                              | -1.009000 | -3.890000 | 3.387000  |  |  |  |  |
| H                              | 0.429000  | -0.100000 | 2.113000  | H                              | -0.240000 | -3.776000 | 4.142000  |  |  |  |  |
| H                              | 0.397000  | -1.347000 | 0.893000  | C                              | -2.319000 | -4.308000 | 4.054000  |  |  |  |  |
| C                              | 1.621000  | -1.806000 | 2.584000  | O                              | -2.876000 | -5.326000 | 3.739000  |  |  |  |  |
| O                              | 2.810000  | -1.952000 | 2.731000  | N                              | -2.775000 | -3.480000 | 5.008000  |  |  |  |  |
| N                              | 0.717000  | -2.503000 | 3.296000  | H                              | -2.256000 | -2.655000 | 5.212000  |  |  |  |  |
| H                              | -0.251000 | -2.313000 | 3.174000  | C                              | -4.012000 | -3.753000 | 5.706000  |  |  |  |  |
| C                              | 1.100000  | -3.554000 | 4.221000  | H                              | -3.971000 | -4.714000 | 6.205000  |  |  |  |  |
| H                              | 0.277000  | -4.246000 | 4.320000  | H                              | -4.170000 | -2.979000 | 6.445000  |  |  |  |  |
| H                              | 1.958000  | -4.075000 | 3.818000  | H                              | -4.854000 | -3.765000 | 5.023000  |  |  |  |  |
| C                              | 1.419000  | -3.044000 | 5.623000  | <b>Glycine tetrapeptide 07</b> |           |           |           |  |  |  |  |
| O                              | 0.741000  | -3.373000 | 6.566000  | H                              | 0.862000  | 3.084000  | -2.063000 |  |  |  |  |
| N                              | 2.487000  | -2.238000 | 5.726000  | C                              | 1.525000  | 2.371000  | -2.541000 |  |  |  |  |
| H                              | 2.988000  | -2.004000 | 4.896000  | H                              | 0.984000  | 1.902000  | -3.356000 |  |  |  |  |
| C                              | 2.948000  | -1.716000 | 6.999000  | H                              | 2.389000  | 2.888000  | -2.930000 |  |  |  |  |
| H                              | 2.837000  | -2.485000 | 7.754000  | C                              | 1.988000  | 1.335000  | -1.542000 |  |  |  |  |
| H                              | 3.991000  | -1.456000 | 6.905000  | O                              | 3.139000  | 1.195000  | -1.231000 |  |  |  |  |
| C                              | 2.213000  | -0.449000 | 7.434000  | N                              | 1.011000  | 0.565000  | -1.010000 |  |  |  |  |
| O                              | 2.774000  | 0.614000  | 7.463000  | H                              | 0.057000  | 0.664000  | -1.275000 |  |  |  |  |
| N                              | 0.925000  | -0.616000 | 7.781000  | C                              | 1.322000  | -0.459000 | -0.056000 |  |  |  |  |
| H                              | 0.525000  | -1.524000 | 7.708000  | H                              | 2.060000  | -1.149000 | -0.453000 |  |  |  |  |
| C                              | 0.110000  | 0.508000  | 8.187000  | H                              | 1.743000  | -0.037000 | 0.853000  |  |  |  |  |
| H                              | -0.859000 | 0.137000  | 8.498000  | C                              | 0.058000  | -1.221000 | 0.291000  |  |  |  |  |
| H                              | 0.568000  | 1.034000  | 9.016000  | O                              | -1.014000 | -0.938000 | -0.186000 |  |  |  |  |
| H                              | -0.028000 | 1.214000  | 7.376000  | N                              | 0.212000  | -2.233000 | 1.165000  |  |  |  |  |
| <b>Glycine tetrapeptide 09</b> |           |           |           |                                |           |           |           |  |  |  |  |
| H                              | 2.385000  | -1.781000 | -3.142000 | H                              | 1.105000  | -2.395000 | 1.571000  |  |  |  |  |
| C                              | 2.516000  | -1.828000 | -2.071000 | C                              | -0.877000 | -3.123000 | 1.522000  |  |  |  |  |
| H                              | 2.213000  | -2.806000 | -1.711000 | H                              | -1.500000 | -3.277000 | 0.651000  |  |  |  |  |
|                                |           |           |           | H                              | -0.464000 | -4.070000 | 1.837000  |  |  |  |  |
|                                |           |           |           | C                              | -1.730000 | -2.609000 | 2.678000  |  |  |  |  |

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|                                |           |           |           |                                |           |           |           |
|--------------------------------|-----------|-----------|-----------|--------------------------------|-----------|-----------|-----------|
| C                              | -1.064000 | -4.684000 | 3.147000  | H                              | 3.565000  | -1.691000 | -1.827000 |
| H                              | -1.039000 | -4.427000 | 4.199000  | C                              | 1.677000  | -0.745000 | -1.429000 |
| H                              | -1.806000 | -4.076000 | 2.650000  | O                              | 0.997000  | 0.012000  | -2.068000 |
| C                              | -1.503000 | -6.138000 | 2.984000  | N                              | 1.745000  | -0.685000 | -0.083000 |
| O                              | -2.467000 | -6.423000 | 2.324000  | H                              | 2.308000  | -1.312000 | 0.447000  |
| N                              | -0.752000 | -7.048000 | 3.629000  | C                              | 1.002000  | 0.292000  | 0.660000  |
| H                              | 0.023000  | -6.733000 | 4.168000  | H                              | 1.276000  | 1.301000  | 0.366000  |
| C                              | -1.051000 | -8.460000 | 3.539000  | H                              | -0.065000 | 0.193000  | 0.484000  |
| H                              | -0.969000 | -8.814000 | 2.518000  | C                              | 1.287000  | 0.104000  | 2.141000  |
| H                              | -0.346000 | -9.002000 | 4.156000  | O                              | 2.032000  | -0.754000 | 2.542000  |
| H                              | -2.056000 | -8.666000 | 3.887000  | N                              | 0.656000  | 0.956000  | 2.963000  |
| <b>Glycine tetrapeptide_11</b> |           |           |           | H                              | 0.041000  | 1.663000  | 2.625000  |
| H                              | 2.791000  | -1.500000 | -0.458000 | C                              | 0.838000  | 0.886000  | 4.387000  |
| C                              | 3.276000  | -0.540000 | -0.332000 | H                              | 0.540000  | -0.084000 | 4.771000  |
| H                              | 4.063000  | -0.639000 | 0.409000  | H                              | 1.882000  | 1.025000  | 4.653000  |
| H                              | 3.716000  | -0.222000 | -1.267000 | C                              | 0.000000  | 1.970000  | 5.042000  |
| C                              | 2.324000  | 0.526000  | 0.145000  | O                              | -0.683000 | 2.723000  | 4.396000  |
| O                              | 2.458000  | 1.689000  | -0.143000 | N                              | 0.076000  | 2.023000  | 6.380000  |
| N                              | 1.310000  | 0.102000  | 0.942000  | H                              | 0.643000  | 1.396000  | 6.907000  |
| H                              | 1.345000  | -0.826000 | 1.298000  | C                              | -0.666000 | 2.999000  | 7.130000  |
| C                              | 0.444000  | 1.045000  | 1.621000  | H                              | -0.393000 | 4.006000  | 6.832000  |
| H                              | 0.230000  | 1.864000  | 0.950000  | H                              | -1.733000 | 2.894000  | 6.954000  |
| H                              | -0.475000 | 0.550000  | 1.898000  | C                              | -0.372000 | 2.807000  | 8.609000  |
| C                              | 1.118000  | 1.532000  | 2.895000  | O                              | 0.376000  | 1.949000  | 8.997000  |
| O                              | 0.867000  | 1.043000  | 3.970000  | N                              | -1.004000 | 3.656000  | 9.436000  |
| N                              | 2.054000  | 2.489000  | 2.736000  | H                              | -1.611000 | 4.345000  | 9.058000  |
| H                              | 2.368000  | 2.664000  | 1.805000  | C                              | -0.817000 | 3.589000  | 10.873000 |
| C                              | 2.973000  | 2.728000  | 3.820000  | H                              | -1.418000 | 4.361000  | 11.334000 |
| H                              | 3.675000  | 3.494000  | 3.515000  | H                              | -1.126000 | 2.625000  | 11.256000 |
| H                              | 2.435000  | 3.085000  | 4.688000  | H                              | 0.222000  | 3.745000  | 11.134000 |
| C                              | 3.765000  | 1.460000  | 4.137000  | <b>Glycine tetrapeptide_10</b> |           |           |           |
| O                              | 4.199000  | 0.769000  | 3.256000  | H                              | -0.094000 | 0.939000  | -1.938000 |
| N                              | 3.937000  | 1.185000  | 5.447000  | C                              | 0.948000  | 1.228000  | -2.030000 |
| H                              | 3.433000  | 1.722000  | 6.114000  | H                              | 1.382000  | 0.664000  | -2.849000 |
| C                              | 4.582000  | -0.028000 | 5.889000  | H                              | 1.012000  | 2.284000  | -2.245000 |
| H                              | 5.370000  | -0.279000 | 5.194000  | C                              | 1.691000  | 0.947000  | -0.744000 |
| H                              | 5.037000  | 0.137000  | 6.858000  | O                              | 2.248000  | 1.802000  | -0.110000 |
| C                              | 3.701000  | -1.266000 | 6.023000  | N                              | 1.689000  | -0.345000 | -0.344000 |
| O                              | 4.195000  | -2.273000 | 6.458000  | H                              | 1.238000  | -1.060000 | -0.868000 |
| N                              | 2.414000  | -1.172000 | 5.659000  | C                              | 2.362000  | -0.742000 | 0.858000  |
| H                              | 2.063000  | -0.344000 | 5.234000  | H                              | 3.428000  | -0.538000 | 0.801000  |
| C                              | 1.549000  | -2.330000 | 5.714000  | H                              | 1.984000  | -0.193000 | 1.716000  |
| H                              | 1.895000  | -3.115000 | 5.049000  | C                              | 2.153000  | -2.227000 | 1.080000  |
| H                              | 1.513000  | -2.735000 | 6.717000  | O                              | 1.544000  | -2.912000 | 0.295000  |
| H                              | 0.554000  | -2.026000 | 5.417000  | N                              | 2.693000  | -2.728000 | 2.206000  |
| <b>Glycine tetrapeptide_12</b> |           |           |           | H                              | 3.134000  | -2.113000 | 2.851000  |
| H                              | 5.058000  | -0.958000 | -1.972000 | C                              | 2.654000  | -4.143000 | 2.524000  |
| C                              | 4.999000  | 0.039000  | -1.561000 | H                              | 2.759000  | -4.709000 | 1.607000  |
| H                              | 5.862000  | 0.223000  | -0.929000 | H                              | 3.478000  | -4.376000 | 3.180000  |
| H                              | 5.013000  | 0.766000  | -2.367000 | C                              | 1.380000  | -4.575000 | 3.244000  |
| C                              | 3.722000  | 0.162000  | -0.760000 | O                              | 1.432000  | -5.053000 | 4.351000  |
| O                              | 2.941000  | -0.744000 | -0.638000 | N                              | 0.234000  | -4.400000 | 2.567000  |
|                                |           |           |           | H                              | 0.283000  | -4.079000 | 1.624000  |

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|                                |           |           |           |                                |           |           |           |
|--------------------------------|-----------|-----------|-----------|--------------------------------|-----------|-----------|-----------|
| C                              | -3.033000 | -5.700000 | 2.274000  | N                              | 3.515000  | 1.365000  | -0.183000 |
| O                              | -3.376000 | -6.781000 | 2.677000  | H                              | 4.158000  | 2.118000  | -0.285000 |
| N                              | -2.126000 | -4.930000 | 2.894000  | C                              | 2.347000  | 1.619000  | 0.609000  |
| H                              | -1.797000 | -4.093000 | 2.467000  | H                              | 1.439000  | 1.501000  | 0.024000  |
| C                              | -1.437000 | -5.410000 | 4.072000  | H                              | 2.278000  | 0.922000  | 1.439000  |
| H                              | -0.864000 | -4.592000 | 4.489000  | C                              | 2.414000  | 3.038000  | 1.144000  |
| H                              | -2.151000 | -5.757000 | 4.808000  | O                              | 3.317000  | 3.786000  | 0.867000  |
| H                              | -0.767000 | -6.231000 | 3.839000  | N                              | 1.398000  | 3.404000  | 1.943000  |
| <b>Glycine tetrapeptide 14</b> |           |           |           | H                              | 0.659000  | 2.780000  | 2.182000  |
| H                              | 2.946000  | -0.664000 | -3.019000 | C                              | 1.354000  | 4.718000  | 2.520000  |
| C                              | 3.269000  | 0.112000  | -2.336000 | H                              | 2.250000  | 4.918000  | 3.099000  |
| H                              | 4.251000  | -0.146000 | -1.952000 | H                              | 1.298000  | 5.482000  | 1.749000  |
| H                              | 3.353000  | 1.052000  | -2.863000 | C                              | 0.136000  | 4.827000  | 3.418000  |
| C                              | 2.331000  | 0.299000  | -1.168000 | O                              | -0.642000 | 3.913000  | 3.545000  |
| O                              | 2.307000  | 1.319000  | -0.529000 | N                              | -0.007000 | 6.001000  | 4.053000  |
| N                              | 1.535000  | -0.753000 | -0.869000 | H                              | 0.626000  | 6.742000  | 3.856000  |
| H                              | 1.647000  | -1.609000 | -1.360000 | C                              | -1.094000 | 6.260000  | 4.982000  |
| C                              | 0.617000  | -0.721000 | 0.252000  | H                              | -1.305000 | 5.349000  | 5.526000  |
| H                              | 0.223000  | 0.281000  | 0.343000  | H                              | -0.781000 | 7.025000  | 5.675000  |
| H                              | -0.192000 | -1.412000 | 0.063000  | C                              | -2.356000 | 6.771000  | 4.289000  |
| C                              | 1.289000  | -1.162000 | 1.547000  | O                              | -2.723000 | 7.906000  | 4.437000  |
| O                              | 1.145000  | -2.278000 | 1.975000  | N                              | -3.000000 | 5.875000  | 3.523000  |
| N                              | 2.049000  | -0.231000 | 2.152000  | H                              | -2.627000 | 4.957000  | 3.442000  |
| H                              | 2.180000  | 0.666000  | 1.734000  | C                              | -4.188000 | 6.243000  | 2.781000  |
| C                              | 2.762000  | -0.532000 | 3.361000  | H                              | -3.970000 | 7.009000  | 2.045000  |
| H                              | 2.185000  | -1.232000 | 3.950000  | H                              | -4.564000 | 5.365000  | 2.274000  |
| H                              | 3.725000  | -1.000000 | 3.162000  | H                              | -4.954000 | 6.623000  | 3.445000  |
| C                              | 3.020000  | 0.742000  | 4.143000  | <b>Glycine tetrapeptide 13</b> |           |           |           |
| O                              | 2.896000  | 1.832000  | 3.644000  | H                              | 2.484000  | 2.454000  | -1.030000 |
| N                              | 3.431000  | 0.565000  | 5.413000  | C                              | 1.803000  | 2.210000  | -0.226000 |
| H                              | 3.413000  | -0.347000 | 5.809000  | H                              | 2.230000  | 2.522000  | 0.720000  |
| C                              | 3.791000  | 1.678000  | 6.274000  | H                              | 0.881000  | 2.755000  | -0.394000 |
| H                              | 4.482000  | 1.326000  | 7.026000  | C                              | 1.503000  | 0.732000  | -0.288000 |
| H                              | 4.274000  | 2.434000  | 5.670000  | O                              | 1.268000  | 0.178000  | -1.332000 |
| C                              | 2.591000  | 2.272000  | 7.009000  | N                              | 1.490000  | 0.070000  | 0.890000  |
| O                              | 2.476000  | 2.152000  | 8.200000  | H                              | 1.635000  | 0.573000  | 1.734000  |
| N                              | 1.701000  | 2.917000  | 6.238000  | C                              | 1.256000  | -1.357000 | 0.975000  |
| H                              | 1.856000  | 2.955000  | 5.256000  | H                              | 1.738000  | -1.843000 | 0.136000  |
| C                              | 0.490000  | 3.475000  | 6.802000  | H                              | 1.684000  | -1.728000 | 1.894000  |
| H                              | -0.049000 | 3.991000  | 6.018000  | C                              | -0.222000 | -1.730000 | 0.991000  |
| H                              | -0.146000 | 2.700000  | 7.216000  | O                              | -0.724000 | -2.253000 | 1.957000  |
| H                              | 0.723000  | 4.178000  | 7.592000  | N                              | -0.917000 | -1.443000 | -0.118000 |
| <b>Glycine tetrapeptide 15</b> |           |           |           | H                              | -0.427000 | -1.112000 | -0.921000 |
| H                              | 2.490000  | 1.709000  | -1.254000 | C                              | -2.302000 | -1.825000 | -0.217000 |
| C                              | 3.112000  | 1.616000  | -0.372000 | H                              | -2.883000 | -1.320000 | 0.546000  |
| H                              | 4.139000  | 1.443000  | -0.663000 | H                              | -2.672000 | -1.514000 | -1.186000 |
| H                              | 3.071000  | 2.549000  | 0.181000  | C                              | -2.469000 | -3.341000 | -0.127000 |
| C                              | 2.673000  | 0.497000  | 0.542000  | O                              | -1.788000 | -4.076000 | -0.784000 |
| O                              | 3.417000  | -0.019000 | 1.332000  | N                              | -3.441000 | -3.765000 | 0.712000  |
| N                              | 1.375000  | 0.131000  | 0.447000  | H                              | -3.863000 | -3.099000 | 1.316000  |
| H                              | 0.759000  | 0.538000  | -0.218000 | C                              | -3.663000 | -5.164000 | 0.992000  |
| C                              | 0.835000  | -0.883000 | 1.304000  | H                              | -4.723000 | -5.370000 | 1.059000  |
|                                |           |           |           | H                              | -3.264000 | -5.741000 | 0.170000  |

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|                                |           |           |           |                                |           |           |           |
|--------------------------------|-----------|-----------|-----------|--------------------------------|-----------|-----------|-----------|
| H                              | 8.819000  | -0.714000 | -1.478000 | H                              | 1.220000  | -1.870000 | 1.054000  |
| C                              | 9.808000  | -2.179000 | -0.293000 | H                              | 1.110000  | -0.693000 | 2.336000  |
| H                              | 10.018000 | -2.666000 | -1.236000 | C                              | -0.674000 | -0.909000 | 1.164000  |
| H                              | 10.739000 | -2.020000 | 0.236000  | O                              | -1.250000 | -0.299000 | 0.301000  |
| H                              | 9.183000  | -2.831000 | 0.308000  | N                              | -1.334000 | -1.652000 | 2.082000  |
| <b>Glycine tetrapeptide_17</b> |           |           |           | H                              | -0.804000 | -2.211000 | 2.710000  |
| H                              | 1.543000  | -0.881000 | -2.229000 | C                              | -2.743000 | -1.952000 | 1.915000  |
| C                              | 2.347000  | -0.500000 | -1.608000 | H                              | -2.948000 | -2.312000 | 0.916000  |
| H                              | 3.128000  | -1.242000 | -1.530000 | H                              | -3.010000 | -2.734000 | 2.614000  |
| H                              | 2.745000  | 0.393000  | -2.081000 | C                              | -3.706000 | -0.793000 | 2.143000  |
| C                              | 1.841000  | -0.179000 | -0.220000 | O                              | -4.831000 | -0.893000 | 1.742000  |
| O                              | 2.300000  | -0.684000 | 0.769000  | N                              | -3.235000 | 0.276000  | 2.817000  |
| N                              | 0.821000  | 0.712000  | -0.166000 | H                              | -2.291000 | 0.262000  | 3.123000  |
| H                              | 0.546000  | 1.191000  | -0.993000 | C                              | -4.019000 | 1.468000  | 3.034000  |
| C                              | 0.247000  | 1.140000  | 1.092000  | H                              | -5.051000 | 1.237000  | 2.811000  |
| H                              | -0.781000 | 1.431000  | 0.929000  | H                              | -3.965000 | 1.778000  | 4.070000  |
| H                              | 0.282000  | 0.309000  | 1.782000  | C                              | -3.627000 | 2.679000  | 2.196000  |
| C                              | 0.972000  | 2.356000  | 1.657000  | O                              | -4.051000 | 3.761000  | 2.505000  |
| O                              | 0.555000  | 3.470000  | 1.469000  | N                              | -2.819000 | 2.473000  | 1.143000  |
| N                              | 2.096000  | 2.099000  | 2.347000  | H                              | -2.584000 | 1.545000  | 0.872000  |
| H                              | 2.438000  | 1.167000  | 2.446000  | C                              | -2.479000 | 3.561000  | 0.251000  |
| C                              | 2.879000  | 3.167000  | 2.903000  | H                              | -3.328000 | 3.873000  | -0.347000 |
| H                              | 3.438000  | 3.700000  | 2.136000  | H                              | -2.135000 | 4.414000  | 0.820000  |
| H                              | 2.230000  | 3.893000  | 3.378000  | H                              | -1.687000 | 3.231000  | -0.409000 |
| C                              | 3.862000  | 2.604000  | 3.914000  | <b>Glycine tetrapeptide_16</b> |           |           |           |
| O                              | 4.015000  | 1.421000  | 4.068000  | H                              | -1.166000 | -0.010000 | -1.308000 |
| N                              | 4.558000  | 3.520000  | 4.610000  | C                              | -0.538000 | 0.814000  | -1.624000 |
| H                              | 4.431000  | 4.499000  | 4.483000  | H                              | -0.287000 | 0.681000  | -2.672000 |
| C                              | 5.536000  | 3.116000  | 5.581000  | H                              | -1.077000 | 1.746000  | -1.525000 |
| H                              | 5.079000  | 2.523000  | 6.369000  | C                              | 0.745000  | 0.916000  | -0.835000 |
| H                              | 6.302000  | 2.497000  | 5.125000  | O                              | 1.386000  | 1.937000  | -0.797000 |
| C                              | 6.177000  | 4.354000  | 6.186000  | N                              | 1.149000  | -0.204000 | -0.198000 |
| O                              | 5.867000  | 5.463000  | 5.840000  | H                              | 0.638000  | -1.047000 | -0.319000 |
| N                              | 7.107000  | 4.114000  | 7.126000  | C                              | 2.368000  | -0.250000 | 0.584000  |
| H                              | 7.322000  | 3.177000  | 7.372000  | H                              | 2.473000  | 0.685000  | 1.119000  |
| C                              | 7.806000  | 5.198000  | 7.790000  | H                              | 2.299000  | -1.063000 | 1.292000  |
| H                              | 8.373000  | 5.786000  | 7.079000  | C                              | 3.590000  | -0.513000 | -0.290000 |
| H                              | 7.108000  | 5.853000  | 8.295000  | O                              | 4.102000  | -1.595000 | -0.344000 |
| H                              | 8.484000  | 4.774000  | 8.519000  | N                              | 4.039000  | 0.559000  | -0.992000 |
| <b>Glycine tetrapeptide_18</b> |           |           |           | H                              | 3.456000  | 1.370000  | -0.999000 |
| H                              | 1.235000  | 2.711000  | -1.070000 | C                              | 5.005000  | 0.393000  | -2.053000 |
| C                              | 1.667000  | 1.732000  | -1.243000 | H                              | 4.935000  | -0.603000 | -2.468000 |
| H                              | 1.095000  | 1.217000  | -2.005000 | H                              | 4.792000  | 1.099000  | -2.846000 |
| H                              | 2.686000  | 1.876000  | -1.583000 | C                              | 6.467000  | 0.597000  | -1.687000 |
| C                              | 1.710000  | 0.995000  | 0.071000  | O                              | 7.305000  | 0.453000  | -2.544000 |
| O                              | 2.365000  | 1.389000  | 1.002000  | N                              | 6.757000  | 0.946000  | -0.427000 |
| N                              | 1.011000  | -0.167000 | 0.159000  | H                              | 6.022000  | 0.972000  | 0.239000  |
| H                              | 0.369000  | -0.395000 | -0.564000 | C                              | 8.115000  | 1.204000  | 0.013000  |
| C                              | 0.878000  | -0.839000 | 1.437000  | H                              | 8.647000  | 1.703000  | -0.787000 |
| H                              | 0.506000  | -0.169000 | 2.200000  | H                              | 8.083000  | 1.850000  | 0.878000  |
| H                              | 0.171000  | -1.652000 | 1.324000  | C                              | 8.869000  | -0.058000 | 0.430000  |
| C                              | 2.170000  | -1.423000 | 1.995000  | O                              | 9.186000  | -0.236000 | 1.577000  |
|                                |           |           |           | N                              | 9.154000  | -0.917000 | -0.562000 |

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|                                |           |           |           |                                |           |           |           |  |  |  |  |
|--------------------------------|-----------|-----------|-----------|--------------------------------|-----------|-----------|-----------|--|--|--|--|
| H                              | -5.537000 | -1.984000 | -6.638000 | O                              | 2.273000  | -1.619000 | 3.172000  |  |  |  |  |
| H                              | -5.918000 | -3.631000 | -7.134000 | N                              | 3.132000  | -1.726000 | 1.094000  |  |  |  |  |
| <b>Glycine tetrapeptide 20</b> |           |           |           |                                |           |           |           |  |  |  |  |
| H                              | 3.163000  | 0.882000  | 1.309000  | H                              | 2.944000  | -1.541000 | 0.137000  |  |  |  |  |
| C                              | 3.251000  | 1.249000  | 0.294000  | C                              | 4.464000  | -2.129000 | 1.470000  |  |  |  |  |
| H                              | 3.347000  | 2.327000  | 0.303000  | H                              | 4.499000  | -2.209000 | 2.548000  |  |  |  |  |
| H                              | 4.149000  | 0.840000  | -0.155000 | H                              | 4.723000  | -3.093000 | 1.051000  |  |  |  |  |
| C                              | 2.075000  | 0.883000  | -0.578000 | C                              | 5.544000  | -1.155000 | 1.013000  |  |  |  |  |
| O                              | 1.917000  | 1.378000  | -1.667000 | O                              | 6.658000  | -1.559000 | 0.776000  |  |  |  |  |
| N                              | 1.220000  | -0.039000 | -0.085000 | N                              | 5.187000  | 0.132000  | 0.891000  |  |  |  |  |
| H                              | 1.412000  | -0.468000 | 0.789000  | H                              | 4.259000  | 0.424000  | 1.110000  |  |  |  |  |
| C                              | 0.033000  | -0.453000 | -0.805000 | C                              | 6.110000  | 1.142000  | 0.412000  |  |  |  |  |
| H                              | -0.684000 | -0.849000 | -0.102000 | H                              | 5.753000  | 2.109000  | 0.732000  |  |  |  |  |
| H                              | -0.392000 | 0.410000  | -1.302000 | H                              | 7.093000  | 0.959000  | 0.826000  |  |  |  |  |
| C                              | 0.318000  | -1.553000 | -1.822000 | C                              | 6.146000  | 1.147000  | -1.114000 |  |  |  |  |
| O                              | -0.074000 | -2.681000 | -1.644000 | O                              | 5.463000  | 1.905000  | -1.756000 |  |  |  |  |
| N                              | 1.015000  | -1.178000 | -2.908000 | N                              | 6.965000  | 0.237000  | -1.671000 |  |  |  |  |
| H                              | 1.338000  | -0.235000 | -2.951000 | H                              | 7.353000  | -0.460000 | -1.074000 |  |  |  |  |
| C                              | 1.544000  | -2.138000 | -3.858000 | C                              | 7.001000  | 0.040000  | -3.104000 |  |  |  |  |
| H                              | 2.409000  | -1.708000 | -4.338000 | H                              | 7.099000  | 0.993000  | -3.603000 |  |  |  |  |
| H                              | 1.841000  | -3.038000 | -3.331000 | H                              | 7.855000  | -0.578000 | -3.349000 |  |  |  |  |
| C                              | 0.574000  | -2.518000 | -4.973000 | H                              | 6.100000  | -0.445000 | -3.471000 |  |  |  |  |
| O                              | 0.866000  | -2.349000 | -6.124000 | <b>Glycine tetrapeptide 19</b> |           |           |           |  |  |  |  |
| N                              | -0.599000 | -3.057000 | -4.564000 | H                              | 2.835000  | 0.790000  | 1.313000  |  |  |  |  |
| H                              | -0.703000 | -3.251000 | -3.591000 | C                              | 3.052000  | 1.002000  | 0.273000  |  |  |  |  |
| C                              | -1.569000 | -3.583000 | -5.494000 | H                              | 3.350000  | 2.035000  | 0.162000  |  |  |  |  |
| H                              | -1.112000 | -3.646000 | -6.472000 | H                              | 3.880000  | 0.374000  | -0.044000 |  |  |  |  |
| H                              | -1.868000 | -4.582000 | -5.203000 | C                              | 1.874000  | 0.738000  | -0.634000 |  |  |  |  |
| C                              | -2.853000 | -2.780000 | -5.654000 | O                              | 1.735000  | 1.315000  | -1.683000 |  |  |  |  |
| O                              | -3.784000 | -3.272000 | -6.234000 | N                              | 0.999000  | -0.202000 | -0.211000 |  |  |  |  |
| N                              | -2.873000 | -1.540000 | -5.134000 | H                              | 1.208000  | -0.733000 | 0.602000  |  |  |  |  |
| H                              | -2.030000 | -1.172000 | -4.764000 | C                              | -0.137000 | -0.610000 | -1.016000 |  |  |  |  |
| C                              | -4.005000 | -0.661000 | -5.333000 | H                              | -0.876000 | -1.062000 | -0.372000 |  |  |  |  |
| H                              | -4.004000 | -0.214000 | -6.322000 | H                              | -0.559000 | 0.265000  | -1.490000 |  |  |  |  |
| H                              | -4.921000 | -1.221000 | -5.213000 | C                              | 0.275000  | -1.655000 | -2.047000 |  |  |  |  |
| H                              | -3.973000 | 0.129000  | -4.592000 | O                              | 0.161000  | -2.829000 | -1.829000 |  |  |  |  |
| <b>Glycine tetrapeptide 21</b> |           |           |           |                                |           |           |           |  |  |  |  |
| H                              | 0.563000  | 2.487000  | -2.651000 | N                              | 0.792000  | -1.161000 | -3.198000 |  |  |  |  |
| C                              | 1.184000  | 1.708000  | -2.231000 | H                              | 1.021000  | -0.190000 | -3.208000 |  |  |  |  |
| H                              | 1.000000  | 0.773000  | -2.744000 | C                              | 1.466000  | -2.035000 | -4.131000 |  |  |  |  |
| H                              | 2.223000  | 1.989000  | -2.374000 | H                              | 2.153000  | -1.444000 | -4.723000 |  |  |  |  |
| C                              | 0.919000  | 1.622000  | -0.750000 | H                              | 2.039000  | -2.788000 | -3.609000 |  |  |  |  |
| O                              | 0.698000  | 2.605000  | -0.081000 | C                              | 0.586000  | -2.791000 | -5.115000 |  |  |  |  |
| N                              | 0.952000  | 0.395000  | -0.192000 | O                              | 1.083000  | -3.639000 | -5.810000 |  |  |  |  |
| H                              | 1.358000  | -0.351000 | -0.708000 | N                              | -0.709000 | -2.453000 | -5.191000 |  |  |  |  |
| C                              | 0.894000  | 0.275000  | 1.244000  | H                              | -1.111000 | -1.786000 | -4.573000 |  |  |  |  |
| H                              | -0.051000 | 0.663000  | 1.602000  | C                              | -1.597000 | -3.178000 | -6.053000 |  |  |  |  |
| H                              | 0.950000  | -0.775000 | 1.505000  | H                              | -1.338000 | -3.026000 | -7.097000 |  |  |  |  |
| C                              | 2.077000  | 0.987000  | 1.896000  | H                              | -1.527000 | -4.246000 | -5.865000 |  |  |  |  |
| O                              | 3.184000  | 0.864000  | 1.449000  | C                              | -3.024000 | -2.712000 | -5.820000 |  |  |  |  |
| N                              | 1.784000  | 1.737000  | 2.977000  | O                              | -3.292000 | -1.831000 | -5.047000 |  |  |  |  |
| H                              | 0.827000  | 1.893000  | 3.198000  | N                              | -3.957000 | -3.352000 | -6.549000 |  |  |  |  |
|                                |           |           |           | H                              | -3.682000 | -4.098000 | -7.144000 |  |  |  |  |
|                                |           |           |           | C                              | -5.364000 | -3.031000 | -6.425000 |  |  |  |  |
|                                |           |           |           | H                              | -5.727000 | -3.241000 | -5.425000 |  |  |  |  |

| Glycine tetrapeptide 23 |           |           |           |   |           |           |           |
|-------------------------|-----------|-----------|-----------|---|-----------|-----------|-----------|
| H                       | 2.394000  | 1.383000  | -3.107000 | C | 2.768000  | 2.553000  | 3.651000  |
| C                       | 2.349000  | 0.622000  | -2.340000 | H | 2.618000  | 2.514000  | 4.720000  |
| H                       | 1.853000  | -0.262000 | -2.724000 | H | 3.747000  | 2.153000  | 3.428000  |
| H                       | 3.363000  | 0.358000  | -2.058000 | C | 2.760000  | 4.031000  | 3.269000  |
| C                       | 1.653000  | 1.190000  | -1.128000 | O | 3.102000  | 4.845000  | 4.082000  |
| O                       | 1.702000  | 2.362000  | -0.852000 | N | 2.387000  | 4.333000  | 2.007000  |
| N                       | 0.974000  | 0.305000  | -0.357000 | H | 2.184000  | 3.597000  | 1.370000  |
| H                       | 1.198000  | -0.658000 | -0.461000 | C | 2.357000  | 5.694000  | 1.525000  |
| C                       | 0.497000  | 0.734000  | 0.936000  | H | 2.874000  | 6.324000  | 2.231000  |
| H                       | -0.197000 | 1.553000  | 0.808000  | H | 2.878000  | 5.762000  | 0.575000  |
| H                       | -0.028000 | -0.091000 | 1.401000  | C | 0.976000  | 6.305000  | 1.317000  |
| C                       | 1.668000  | 1.130000  | 1.833000  | O | 0.868000  | 7.501000  | 1.250000  |
| O                       | 2.668000  | 0.466000  | 1.857000  | N | -0.068000 | 5.464000  | 1.186000  |
| N                       | 1.484000  | 2.248000  | 2.561000  | H | 0.107000  | 4.497000  | 1.037000  |
| H                       | 0.682000  | 2.811000  | 2.371000  | C | -1.381000 | 5.978000  | 0.864000  |
| C                       | 2.573000  | 2.902000  | 3.253000  | H | -1.432000 | 6.366000  | -0.149000 |
| H                       | 2.391000  | 2.969000  | 4.317000  | H | -2.103000 | 5.177000  | 0.971000  |
| H                       | 3.474000  | 2.327000  | 3.088000  | H | -1.639000 | 6.778000  | 1.544000  |
| Glycine tetrapeptide 22 |           |           |           |   |           |           |           |
| C                       | 2.752000  | 4.328000  | 2.748000  | H | 4.040000  | -0.679000 | -2.137000 |
| O                       | 2.965000  | 5.230000  | 3.508000  | C | 4.071000  | 0.317000  | -1.718000 |
| N                       | 2.644000  | 4.507000  | 1.403000  | H | 5.049000  | 0.506000  | -1.291000 |
| H                       | 2.329000  | 3.733000  | 0.857000  | H | 3.901000  | 1.027000  | -2.521000 |
| C                       | 2.192000  | 5.786000  | 0.939000  | C | 2.954000  | 0.453000  | -0.709000 |
| H                       | 2.786000  | 6.571000  | 1.388000  | O | 1.888000  | -0.082000 | -0.857000 |
| H                       | 2.311000  | 5.839000  | -0.137000 | N | 3.217000  | 1.236000  | 0.360000  |
| C                       | 0.713000  | 5.995000  | 1.276000  | H | 4.097000  | 1.681000  | 0.481000  |
| O                       | 0.022000  | 5.101000  | 1.695000  | C | 2.222000  | 1.475000  | 1.365000  |
| N                       | 0.237000  | 7.231000  | 1.040000  | H | 1.396000  | 2.069000  | 0.978000  |
| H                       | 0.881000  | 7.957000  | 0.831000  | H | 1.801000  | 0.540000  | 1.717000  |
| C                       | -1.128000 | 7.590000  | 1.369000  | C | 2.850000  | 2.226000  | 2.520000  |
| H                       | -1.283000 | 7.641000  | 2.441000  | O | 3.968000  | 2.681000  | 2.458000  |
| H                       | -1.348000 | 8.556000  | 0.933000  | N | 2.094000  | 2.351000  | 3.627000  |
| H                       | -1.808000 | 6.856000  | 0.960000  | H | 1.120000  | 2.161000  | 3.569000  |
| Glycine tetrapeptide 24 |           |           |           | C | 2.568000  | 3.170000  | 4.718000  |
| H                       | 0.954000  | 2.841000  | -1.113000 | H | 1.855000  | 3.103000  | 5.530000  |
| C                       | 1.649000  | 2.387000  | -0.419000 | H | 3.517000  | 2.787000  | 5.067000  |
| H                       | 2.654000  | 2.554000  | -0.793000 | C | 2.663000  | 4.636000  | 4.301000  |
| H                       | 1.555000  | 2.857000  | 0.552000  | O | 1.746000  | 5.168000  | 3.742000  |
| C                       | 1.395000  | 0.901000  | -0.386000 | N | 3.818000  | 5.261000  | 4.612000  |
| O                       | 1.153000  | 0.275000  | -1.388000 | H | 4.575000  | 4.713000  | 4.950000  |
| N                       | 1.475000  | 0.303000  | 0.823000  | C | 4.087000  | 6.620000  | 4.205000  |
| H                       | 1.615000  | 0.855000  | 1.636000  | H | 3.150000  | 7.153000  | 4.143000  |
| C                       | 1.343000  | -1.132000 | 0.984000  | H | 4.700000  | 7.112000  | 4.949000  |
| H                       | 1.826000  | -1.623000 | 0.149000  | C | 4.793000  | 6.804000  | 2.864000  |
| H                       | 1.827000  | -1.427000 | 1.903000  | O | 5.133000  | 7.912000  | 2.544000  |
| C                       | -0.116000 | -1.564000 | 1.081000  | N | 5.011000  | 5.715000  | 2.111000  |
| O                       | -0.601000 | -1.906000 | 2.128000  | H | 4.639000  | 4.833000  | 2.379000  |
| N                       | -0.808000 | -1.549000 | -0.079000 | C | 5.607000  | 5.837000  | 0.798000  |
| H                       | -0.361000 | -1.127000 | -0.867000 | H | 6.532000  | 6.396000  | 0.855000  |
| C                       | -2.251000 | -1.657000 | -0.076000 | H | 5.815000  | 4.844000  | 0.423000  |
| H                       | -2.695000 | -0.980000 | 0.643000  | H | 4.946000  | 6.346000  | 0.105000  |

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|                                      |           |           |           |                                      |           |           |           |
|--------------------------------------|-----------|-----------|-----------|--------------------------------------|-----------|-----------|-----------|
| C                                    | -0.304000 | 1.048000  | -2.253000 | H                                    | -2.614000 | -1.385000 | -1.059000 |
| H                                    | -0.082000 | 0.359000  | -3.061000 | C                                    | -2.824000 | -3.029000 | 0.250000  |
| H                                    | -0.079000 | 2.059000  | -2.561000 | O                                    | -3.982000 | -3.119000 | 0.548000  |
| C                                    | 0.481000  | 0.737000  | -1.001000 | N                                    | -1.988000 | -4.084000 | 0.157000  |
| O                                    | 0.863000  | 1.584000  | -0.248000 | H                                    | -1.046000 | -3.914000 | -0.105000 |
| N                                    | 0.730000  | -0.588000 | -0.773000 | C                                    | -2.385000 | -5.420000 | 0.527000  |
| H                                    | 0.283000  | -1.259000 | -1.354000 | H                                    | -3.464000 | -5.470000 | 0.519000  |
| C                                    | 1.246000  | -1.032000 | 0.502000  | H                                    | -2.015000 | -6.137000 | -0.196000 |
| H                                    | 0.919000  | -0.366000 | 1.288000  | C                                    | -1.921000 | -5.903000 | 1.897000  |
| H                                    | 0.862000  | -2.020000 | 0.723000  | O                                    | -2.056000 | -7.066000 | 2.176000  |
| C                                    | 2.759000  | -1.127000 | 0.625000  | N                                    | -1.378000 | -4.999000 | 2.728000  |
| O                                    | 3.241000  | -1.441000 | 1.685000  | H                                    | -1.369000 | -4.036000 | 2.482000  |
| N                                    | 3.495000  | -0.888000 | -0.472000 | C                                    | -0.995000 | -5.371000 | 4.072000  |
| H                                    | 3.042000  | -0.527000 | -1.279000 | H                                    | -1.860000 | -5.571000 | 4.696000  |
| C                                    | 4.940000  | -0.983000 | -0.463000 | H                                    | -0.380000 | -6.261000 | 4.053000  |
| H                                    | 5.227000  | -1.806000 | 0.178000  | H                                    | -0.429000 | -4.556000 | 4.505000  |
| H                                    | 5.285000  | -1.175000 | -1.468000 | <hr/> <b>Glycine tetrapeptide_25</b> |           |           |           |
| C                                    | 5.619000  | 0.301000  | 0.004000  | H                                    | 1.010000  | -0.519000 | -1.849000 |
| O                                    | 6.251000  | 0.981000  | -0.769000 | C                                    | 1.293000  | 0.518000  | -1.710000 |
| N                                    | 5.468000  | 0.602000  | 1.301000  | H                                    | 2.334000  | 0.646000  | -1.985000 |
| H                                    | 4.923000  | -0.013000 | 1.867000  | H                                    | 0.689000  | 1.149000  | -2.347000 |
| C                                    | 5.911000  | 1.863000  | 1.867000  | C                                    | 1.135000  | 0.986000  | -0.286000 |
| H                                    | 5.749000  | 2.652000  | 1.142000  | O                                    | 1.076000  | 2.154000  | 0.004000  |
| H                                    | 5.324000  | 2.068000  | 2.749000  | N                                    | 1.117000  | 0.024000  | 0.672000  |
| C                                    | 7.375000  | 1.871000  | 2.302000  | H                                    | 1.075000  | -0.928000 | 0.394000  |
| O                                    | 7.677000  | 2.060000  | 3.451000  | C                                    | 0.827000  | 0.357000  | 2.050000  |
| N                                    | 8.277000  | 1.682000  | 1.324000  | H                                    | -0.060000 | 0.971000  | 2.123000  |
| H                                    | 7.951000  | 1.574000  | 0.389000  | H                                    | 0.646000  | -0.561000 | 2.595000  |
| C                                    | 9.695000  | 1.691000  | 1.605000  | C                                    | 1.915000  | 1.120000  | 2.796000  |
| H                                    | 10.014000 | 2.653000  | 1.993000  | O                                    | 1.636000  | 1.688000  | 3.815000  |
| H                                    | 9.950000  | 0.934000  | 2.336000  | N                                    | 3.155000  | 1.086000  | 2.267000  |
| H                                    | 10.231000 | 1.488000  | 0.687000  | H                                    | 3.291000  | 0.602000  | 1.409000  |
| <hr/> <b>Glycine tetrapeptide_27</b> |           |           |           | C                                    | 4.242000  | 1.889000  | 2.772000  |
| H                                    | 0.774000  | 3.104000  | 1.028000  | H                                    | 3.869000  | 2.478000  | 3.599000  |
| C                                    | 1.515000  | 2.319000  | 1.067000  | H                                    | 5.061000  | 1.278000  | 3.127000  |
| H                                    | 2.346000  | 2.601000  | 0.428000  | C                                    | 4.819000  | 2.812000  | 1.707000  |
| H                                    | 1.881000  | 2.208000  | 2.081000  | O                                    | 5.997000  | 3.045000  | 1.668000  |
| C                                    | 0.906000  | 1.047000  | 0.531000  | N                                    | 3.936000  | 3.352000  | 0.834000  |
| O                                    | 0.042000  | 1.044000  | -0.303000 | H                                    | 3.007000  | 2.993000  | 0.808000  |
| N                                    | 1.392000  | -0.118000 | 1.043000  | C                                    | 4.436000  | 3.900000  | -0.392000 |
| H                                    | 2.197000  | -0.078000 | 1.624000  | H                                    | 3.640000  | 4.452000  | -0.881000 |
| C                                    | 1.075000  | -1.376000 | 0.402000  | H                                    | 5.246000  | 4.585000  | -0.184000 |
| H                                    | 1.177000  | -1.306000 | -0.672000 | C                                    | 4.900000  | 2.802000  | -1.349000 |
| H                                    | 1.769000  | -2.129000 | 0.758000  | O                                    | 4.513000  | 1.665000  | -1.249000 |
| C                                    | -0.324000 | -1.914000 | 0.657000  | N                                    | 5.718000  | 3.209000  | -2.336000 |
| O                                    | -0.760000 | -2.777000 | -0.063000 | H                                    | 6.132000  | 4.109000  | -2.266000 |
| N                                    | -0.995000 | -1.430000 | 1.713000  | C                                    | 6.267000  | 2.273000  | -3.296000 |
| H                                    | -0.616000 | -0.655000 | 2.204000  | H                                    | 6.995000  | 1.610000  | -2.840000 |
| C                                    | -2.327000 | -1.885000 | 2.059000  | H                                    | 5.473000  | 1.672000  | -3.716000 |
| H                                    | -2.395000 | -2.943000 | 1.842000  | H                                    | 6.744000  | 2.830000  | -4.092000 |
| H                                    | -2.489000 | -1.728000 | 3.115000  | <hr/> <b>Glycine tetrapeptide_26</b> |           |           |           |
| C                                    | -3.439000 | -1.136000 | 1.327000  | H                                    | -1.364000 | 0.984000  | -2.029000 |
| O                                    | -4.246000 | -0.494000 | 1.940000  |                                      |           |           |           |

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|                                |           |           |           |                                |           |           |           |
|--------------------------------|-----------|-----------|-----------|--------------------------------|-----------|-----------|-----------|
| H                              | -2.129000 | 0.044000  | -3.651000 | N                              | -3.433000 | -1.261000 | -0.019000 |
| H                              | -1.965000 | -1.704000 | -3.604000 | H                              | -2.779000 | -1.895000 | -0.425000 |
| N                              | -1.449000 | -1.044000 | -0.698000 | C                              | -4.477000 | -0.700000 | -0.846000 |
| C                              | -1.899000 | -1.220000 | 0.678000  | H                              | -4.871000 | -1.456000 | -1.515000 |
| C                              | -2.813000 | -2.453000 | 0.769000  | H                              | -5.285000 | -0.377000 | -0.206000 |
| O                              | -2.332000 | -3.547000 | 0.652000  | C                              | -4.106000 | 0.490000  | -1.721000 |
| C                              | -2.427000 | 0.077000  | 1.289000  | O                              | -4.927000 | 0.904000  | -2.499000 |
| H                              | -0.524000 | -1.335000 | -0.913000 | N                              | -2.886000 | 1.025000  | -1.584000 |
| H                              | -1.020000 | -1.524000 | 1.232000  | H                              | -2.241000 | 0.654000  | -0.927000 |
| H                              | -2.742000 | -0.090000 | 2.314000  | C                              | -2.487000 | 2.169000  | -2.376000 |
| H                              | -1.634000 | 0.815000  | 1.295000  | H                              | -1.469000 | 2.419000  | -2.116000 |
| H                              | -3.255000 | 0.484000  | 0.725000  | H                              | -2.544000 | 1.944000  | -3.434000 |
| N                              | -4.131000 | -2.260000 | 0.994000  | H                              | -3.129000 | 3.020000  | -2.179000 |
| C                              | -5.046000 | -3.384000 | 1.016000  | <u>Glycine tetrapeptide 28</u> |           |           |           |
| C                              | -5.285000 | -4.030000 | -0.350000 | H                              | 4.387000  | -1.616000 | -0.678000 |
| O                              | -5.663000 | -5.176000 | -0.399000 | C                              | 3.364000  | -1.538000 | -1.034000 |
| C                              | -6.386000 | -2.965000 | 1.621000  | H                              | 3.386000  | -1.409000 | -2.106000 |
| H                              | -4.502000 | -1.346000 | 0.872000  | H                              | 2.843000  | -2.455000 | -0.783000 |
| H                              | -4.603000 | -4.165000 | 1.616000  | C                              | 2.725000  | -0.318000 | -0.412000 |
| H                              | -7.057000 | -3.814000 | 1.643000  | O                              | 2.812000  | 0.775000  | -0.905000 |
| H                              | -6.243000 | -2.603000 | 2.633000  | N                              | 2.069000  | -0.526000 | 0.749000  |
| H                              | -6.851000 | -2.179000 | 1.033000  | H                              | 2.020000  | -1.424000 | 1.176000  |
| N                              | -5.122000 | -3.260000 | -1.438000 | C                              | 1.467000  | 0.560000  | 1.466000  |
| C                              | -5.285000 | -3.789000 | -2.786000 | H                              | 2.209000  | 1.299000  | 1.760000  |
| C                              | -3.951000 | -4.405000 | -3.228000 | H                              | 0.738000  | 1.077000  | 0.850000  |
| O                              | -3.174000 | -3.807000 | -3.932000 | C                              | 0.796000  | 0.014000  | 2.713000  |
| C                              | -5.743000 | -2.691000 | -3.734000 | O                              | 0.913000  | -1.131000 | 3.050000  |
| H                              | -4.695000 | -2.362000 | -1.354000 | N                              | 0.056000  | 0.907000  | 3.415000  |
| H                              | -6.030000 | -4.571000 | -2.731000 | H                              | 0.076000  | 1.864000  | 3.147000  |
| H                              | -5.845000 | -3.080000 | -4.740000 | C                              | -0.498000 | 0.560000  | 4.705000  |
| H                              | -6.702000 | -2.304000 | -3.408000 | H                              | 0.170000  | -0.108000 | 5.230000  |
| H                              | -5.027000 | -1.880000 | -3.759000 | H                              | -0.604000 | 1.460000  | 5.297000  |
| N                              | -3.718000 | -5.638000 | -2.749000 | C                              | -1.862000 | -0.115000 | 4.699000  |
| C                              | -2.425000 | -6.270000 | -2.899000 | O                              | -2.314000 | -0.521000 | 5.735000  |
| H                              | -4.333000 | -5.975000 | -2.039000 | N                              | -2.504000 | -0.226000 | 3.517000  |
| H                              | -1.689000 | -5.848000 | -2.220000 | H                              | -2.185000 | 0.335000  | 2.763000  |
| H                              | -2.527000 | -7.328000 | -2.691000 | C                              | -3.875000 | -0.654000 | 3.494000  |
| H                              | -2.075000 | -6.141000 | -3.913000 | H                              | -4.116000 | -1.020000 | 2.501000  |
| <u>Alanine tetrapeptide 02</u> |           |           |           | H                              | -3.995000 | -1.471000 | 4.191000  |
| C                              | 1.018000  | -0.225000 | 2.755000  | C                              | -4.837000 | 0.488000  | 3.811000  |
| C                              | -0.180000 | -0.929000 | 2.169000  | O                              | -4.545000 | 1.629000  | 3.573000  |
| O                              | -0.941000 | -0.391000 | 1.404000  | N                              | -6.038000 | 0.110000  | 4.294000  |
| H                              | 1.316000  | 0.567000  | 2.083000  | H                              | -6.134000 | -0.817000 | 4.639000  |
| H                              | 1.849000  | -0.904000 | 2.912000  | C                              | -7.045000 | 1.082000  | 4.666000  |
| H                              | 0.734000  | 0.209000  | 3.709000  | H                              | -7.052000 | 1.881000  | 3.939000  |
| N                              | -0.361000 | -2.213000 | 2.566000  | H                              | -8.015000 | 0.601000  | 4.673000  |
| C                              | -1.501000 | -2.998000 | 2.129000  | H                              | -6.855000 | 1.510000  | 5.645000  |
| C                              | -2.717000 | -2.634000 | 2.987000  | <u>Alanine tetrapeptide 01</u> |           |           |           |
| O                              | -2.876000 | -3.135000 | 4.076000  | C                              | -1.692000 | -0.781000 | -3.104000 |
| C                              | -1.194000 | -4.486000 | 2.235000  | C                              | -2.293000 | -0.809000 | -1.724000 |
| H                              | 0.190000  | -2.568000 | 3.315000  | O                              | -3.480000 | -0.644000 | -1.543000 |
| H                              | -1.691000 | -2.733000 | 1.099000  | H                              | -0.613000 | -0.679000 | -3.092000 |
| H                              | -2.033000 | -5.071000 | 1.876000  |                                |           |           |           |

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|                         |           |           |           |       |           |           |          |  |  |  |  |
|-------------------------|-----------|-----------|-----------|-------|-----------|-----------|----------|--|--|--|--|
| H                       | 3.062000  | -1.115000 | 1.373000  | H     | -0.323000 | -4.725000 | 1.635000 |  |  |  |  |
| H                       | 3.156000  | -0.272000 | 2.921000  | H     | -1.011000 | -4.767000 | 3.265000 |  |  |  |  |
| N                       | 1.270000  | -1.577000 | 5.283000  | N     | -3.539000 | -1.715000 | 2.450000 |  |  |  |  |
| C                       | 1.301000  | -1.790000 | 6.717000  | C     | -4.720000 | -1.134000 | 3.084000 |  |  |  |  |
| C                       | 0.214000  | -2.732000 | 7.244000  | C     | -4.370000 | -0.079000 | 4.138000 |  |  |  |  |
| O                       | 0.134000  | -2.918000 | 8.432000  | O     | -4.850000 | 1.027000  | 4.060000 |  |  |  |  |
| C                       | 1.227000  | -0.454000 | 7.452000  | C     | -5.712000 | -2.171000 | 3.617000 |  |  |  |  |
| H                       | 0.642000  | -0.902000 | 4.916000  | H     | -3.162000 | -1.203000 | 1.681000 |  |  |  |  |
| H                       | 2.239000  | -2.276000 | 6.943000  | H     | -5.213000 | -0.566000 | 2.308000 |  |  |  |  |
| H                       | 1.246000  | -0.621000 | 8.519000  | H     | -6.602000 | -1.658000 | 3.967000 |  |  |  |  |
| H                       | 2.064000  | 0.175000  | 7.170000  | H     | -5.997000 | -2.845000 | 2.817000 |  |  |  |  |
| H                       | 0.305000  | 0.072000  | 7.211000  | H     | -5.297000 | -2.753000 | 4.426000 |  |  |  |  |
| N                       | -0.614000 | -3.299000 | 6.356000  | N     | -3.529000 | -0.447000 | 5.119000 |  |  |  |  |
| C                       | -1.621000 | -4.244000 | 6.788000  | C     | -3.018000 | 0.504000  | 6.097000 |  |  |  |  |
| H                       | -0.462000 | -3.185000 | 5.381000  | C     | -1.849000 | 1.265000  | 5.455000 |  |  |  |  |
| H                       | -2.212000 | -4.527000 | 5.928000  | O     | -0.706000 | 0.908000  | 5.601000 |  |  |  |  |
| H                       | -1.172000 | -5.131000 | 7.220000  | C     | -2.581000 | -0.224000 | 7.359000 |  |  |  |  |
| H                       | -2.267000 | -3.796000 | 7.532000  | H     | -3.168000 | -1.377000 | 5.120000 |  |  |  |  |
| <hr/>                   |           |           |           |       |           |           |          |  |  |  |  |
| Alanine tetrapeptide_04 |           |           |           |       |           |           |          |  |  |  |  |
| C                       | 0.277000  | 0.362000  | 2.332000  | H     | -2.214000 | 0.484000  | 8.093000 |  |  |  |  |
| C                       | -0.416000 | -0.868000 | 2.862000  | H     | -3.420000 | -0.764000 | 7.783000 |  |  |  |  |
| O                       | -0.571000 | -1.061000 | 4.044000  | H     | -1.779000 | -0.919000 | 7.143000 |  |  |  |  |
| H                       | -0.475000 | 1.112000  | 2.104000  | N     | -2.210000 | 2.321000  | 4.705000 |  |  |  |  |
| H                       | 0.837000  | 0.145000  | 1.432000  | C     | -1.255000 | 3.017000  | 3.868000 |  |  |  |  |
| H                       | 0.932000  | 0.750000  | 3.099000  | H     | -3.179000 | 2.410000  | 4.489000 |  |  |  |  |
| N                       | -0.893000 | -1.717000 | 1.920000  | H     | -0.336000 | 3.167000  | 4.417000 |  |  |  |  |
| C                       | -1.596000 | -2.940000 | 2.273000  | H     | -1.034000 | 2.463000  | 2.961000 |  |  |  |  |
| C                       | -0.577000 | -4.077000 | 2.395000  | H     | -1.665000 | 3.982000  | 3.598000 |  |  |  |  |
| O                       | -0.526000 | -4.970000 | 1.583000  | <hr/> |           |           |          |  |  |  |  |
| C                       | -2.670000 | -3.260000 | 1.245000  | C     | -2.979000 | 2.248000  | 3.489000 |  |  |  |  |
| H                       | -0.483000 | -1.671000 | 1.012000  | C     | -3.035000 | 0.904000  | 2.799000 |  |  |  |  |
| H                       | -2.044000 | -2.771000 | 3.243000  | O     | -4.053000 | 0.425000  | 2.389000 |  |  |  |  |
| H                       | -3.194000 | -4.169000 | 1.514000  | H     | -2.290000 | 2.914000  | 2.979000 |  |  |  |  |
| H                       | -3.379000 | -2.443000 | 1.198000  | H     | -2.640000 | 2.130000  | 4.513000 |  |  |  |  |
| H                       | -2.235000 | -3.410000 | 0.264000  | H     | -3.967000 | 2.682000  | 3.485000 |  |  |  |  |
| N                       | 0.273000  | -3.955000 | 3.434000  | N     | -1.837000 | 0.264000  | 2.688000 |  |  |  |  |
| C                       | 1.517000  | -4.702000 | 3.608000  | C     | -1.737000 | -1.035000 | 2.041000 |  |  |  |  |
| C                       | 2.556000  | -4.249000 | 2.575000  | C     | -0.581000 | -1.820000 | 2.648000 |  |  |  |  |
| O                       | 3.531000  | -3.626000 | 2.908000  | O     | -0.745000 | -2.888000 | 3.170000 |  |  |  |  |
| C                       | 1.330000  | -6.217000 | 3.667000  | C     | -1.627000 | -0.935000 | 0.517000 |  |  |  |  |
| H                       | 0.170000  | -3.134000 | 3.993000  | H     | -1.012000 | 0.744000  | 2.964000 |  |  |  |  |
| H                       | 1.924000  | -4.368000 | 4.551000  | H     | -2.627000 | -1.588000 | 2.294000 |  |  |  |  |
| H                       | 2.286000  | -6.689000 | 3.874000  | H     | -1.535000 | -1.922000 | 0.075000 |  |  |  |  |
| H                       | 0.647000  | -6.463000 | 4.472000  | H     | -2.521000 | -0.466000 | 0.129000 |  |  |  |  |
| H                       | 0.932000  | -6.617000 | 2.747000  | H     | -0.772000 | -0.340000 | 0.210000 |  |  |  |  |
| N                       | 2.312000  | -4.565000 | 1.285000  | N     | 0.650000  | -1.235000 | 2.592000 |  |  |  |  |
| C                       | 3.099000  | -3.954000 | 0.242000  | C     | 1.846000  | -1.999000 | 2.928000 |  |  |  |  |
| C                       | 2.877000  | -2.439000 | 0.216000  | C     | 1.993000  | -2.313000 | 4.416000 |  |  |  |  |
| O                       | 1.765000  | -1.970000 | 0.168000  | O     | 2.769000  | -3.166000 | 4.749000 |  |  |  |  |
| C                       | 2.707000  | -4.539000 | -1.113000 | C     | 3.087000  | -1.249000 | 2.450000 |  |  |  |  |
| H                       | 1.405000  | -4.911000 | 1.051000  | H     | 0.773000  | -0.491000 | 1.942000 |  |  |  |  |
| H                       | 4.143000  | -4.162000 | 0.439000  | H     | 1.801000  | -2.969000 | 2.449000 |  |  |  |  |
| H                       | 3.305000  | -4.100000 | -1.904000 | H     | 3.970000  | -1.817000 | 2.705000 |  |  |  |  |

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|--------------------------------|-----------|------------|-----------|--------------------------------|-----------|-----------|-----------|
| C                              | -1.243000 | 2.746000   | 0.224000  | H                              | 2.865000  | -5.612000 | -1.114000 |
| C                              | -1.558000 | 1.811000   | 1.372000  | H                              | 1.663000  | -4.337000 | -1.322000 |
| O                              | -1.462000 | 2.148000   | 2.523000  | N                              | 3.994000  | -1.692000 | 0.174000  |
| H                              | -0.444000 | 2.340000   | -0.388000 | C                              | 3.937000  | -0.246000 | 0.193000  |
| H                              | -0.941000 | 3.701000   | 0.626000  | H                              | 4.834000  | -2.123000 | 0.487000  |
| H                              | -2.115000 | 2.877000   | -0.408000 | H                              | 3.197000  | 0.094000  | -0.518000 |
| N                              | -1.956000 | 0.572000   | 1.010000  | H                              | 3.679000  | 0.137000  | 1.175000  |
| C                              | -2.246000 | -0.455000  | 1.980000  | H                              | 4.904000  | 0.146000  | -0.094000 |
| C                              | -2.110000 | -1.800000  | 1.272000  | <u>Alanine tetrapeptide_05</u> |           |           |           |
| O                              | -2.128000 | -1.884000  | 0.068000  | C                              | -2.374000 | 1.643000  | -0.358000 |
| C                              | -3.648000 | -0.302000  | 2.585000  | C                              | -1.293000 | 0.989000  | 0.470000  |
| H                              | -1.981000 | 0.295000   | 0.054000  | O                              | -0.330000 | 1.593000  | 0.868000  |
| H                              | -1.513000 | -0.397000  | 2.777000  | H                              | -2.493000 | 1.127000  | -1.305000 |
| H                              | -3.841000 | -1.061000  | 3.336000  | H                              | -2.099000 | 2.671000  | -0.541000 |
| H                              | -3.726000 | 0.671000   | 3.052000  | H                              | -3.323000 | 1.609000  | 0.166000  |
| H                              | -4.403000 | -0.382000  | 1.810000  | N                              | -1.482000 | -0.323000 | 0.738000  |
| N                              | -1.996000 | -2.870000  | 2.073000  | C                              | -0.577000 | -1.092000 | 1.579000  |
| C                              | -1.943000 | -4.217000  | 1.551000  | C                              | 0.580000  | -1.642000 | 0.737000  |
| C                              | -2.382000 | -5.156000  | 2.671000  | O                              | 0.640000  | -2.806000 | 0.419000  |
| O                              | -2.383000 | -4.803000  | 3.825000  | C                              | -1.329000 | -2.211000 | 2.284000  |
| C                              | -0.538000 | -4.586000  | 1.057000  | H                              | -2.262000 | -0.794000 | 0.340000  |
| H                              | -2.008000 | -2.782000  | 3.065000  | H                              | -0.167000 | -0.405000 | 2.308000  |
| H                              | -2.640000 | -4.294000  | 0.725000  | H                              | -0.661000 | -2.764000 | 2.931000  |
| H                              | -0.518000 | -5.587000  | 0.638000  | H                              | -2.130000 | -1.793000 | 2.884000  |
| H                              | -0.238000 | -3.886000  | 0.289000  | H                              | -1.741000 | -2.912000 | 1.568000  |
| H                              | 0.172000  | -4.538000  | 1.875000  | N                              | 1.504000  | -0.733000 | 0.385000  |
| N                              | -2.733000 | -6.392000  | 2.286000  | C                              | 2.587000  | -1.036000 | -0.541000 |
| C                              | -3.075000 | -7.426000  | 3.236000  | C                              | 3.793000  | -1.595000 | 0.225000  |
| C                              | -2.833000 | -8.767000  | 2.549000  | O                              | 4.807000  | -0.956000 | 0.372000  |
| O                              | -2.783000 | -8.857000  | 1.349000  | C                              | 2.962000  | 0.206000  | -1.334000 |
| C                              | -4.532000 | -7.314000  | 3.703000  | H                              | 1.346000  | 0.219000  | 0.640000  |
| H                              | -2.701000 | -6.669000  | 1.329000  | H                              | 2.233000  | -1.811000 | -1.209000 |
| H                              | -2.419000 | -7.331000  | 4.094000  | H                              | 3.749000  | -0.023000 | -2.041000 |
| H                              | -4.771000 | -8.078000  | 4.436000  | H                              | 2.097000  | 0.570000  | -1.877000 |
| H                              | -4.687000 | -6.343000  | 4.156000  | H                              | 3.326000  | 0.988000  | -0.678000 |
| H                              | -5.206000 | -7.422000  | 2.860000  | N                              | 3.627000  | -2.836000 | 0.709000  |
| N                              | -2.714000 | -9.830000  | 3.362000  | C                              | 4.597000  | -3.475000 | 1.589000  |
| C                              | -2.541000 | -11.169000 | 2.833000  | C                              | 5.657000  | -4.212000 | 0.759000  |
| H                              | -2.733000 | -9.697000  | 4.346000  | O                              | 5.679000  | -5.412000 | 0.671000  |
| H                              | -1.642000 | -11.233000 | 2.234000  | C                              | 3.888000  | -4.422000 | 2.545000  |
| H                              | -2.466000 | -11.859000 | 3.662000  | H                              | 2.746000  | -3.283000 | 0.565000  |
| H                              | -3.384000 | -11.450000 | 2.214000  | H                              | 5.092000  | -2.688000 | 2.145000  |
| <u>Alanine tetrapeptide_07</u> |           |            |           | H                              | 4.601000  | -4.881000 | 3.217000  |
| C                              | -1.523000 | 1.529000   | -0.446000 | H                              | 3.155000  | -3.876000 | 3.129000  |
| C                              | -2.039000 | 1.029000   | 0.882000  | H                              | 3.393000  | -5.217000 | 2.001000  |
| O                              | -2.793000 | 1.661000   | 1.566000  | N                              | 6.552000  | -3.410000 | 0.155000  |
| H                              | -1.444000 | 0.731000   | -1.176000 | C                              | 7.549000  | -3.948000 | -0.743000 |
| H                              | -0.537000 | 1.961000   | -0.304000 | H                              | 6.392000  | -2.427000 | 0.181000  |
| H                              | -2.189000 | 2.297000   | -0.812000 | H                              | 8.266000  | -3.171000 | -0.971000 |
| N                              | -1.601000 | -0.210000  | 1.256000  | H                              | 8.063000  | -4.776000 | -0.273000 |
| C                              | -1.791000 | -0.700000  | 2.617000  | H                              | 7.111000  | -4.305000 | -1.670000 |
| C                              | -3.277000 | -0.809000  | 2.979000  | <u>Alanine tetrapeptide_06</u> |           |           |           |
| O                              | -3.650000 | -0.593000  | 4.104000  |                                |           |           |           |

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|                                |           |           |           |                                |            |           |           |
|--------------------------------|-----------|-----------|-----------|--------------------------------|------------|-----------|-----------|
| C                              | 1.152000  | 3.726000  | 4.590000  | C                              | -1.016000  | 0.093000  | 3.664000  |
| H                              | 0.679000  | 2.508000  | 2.360000  | H                              | -0.848000  | -0.604000 | 0.740000  |
| H                              | -0.871000 | 3.027000  | 4.761000  | H                              | -1.429000  | -1.725000 | 2.612000  |
| H                              | 1.086000  | 4.414000  | 5.423000  | H                              | -1.143000  | -0.356000 | 4.639000  |
| H                              | 1.584000  | 2.795000  | 4.939000  | H                              | 0.039000   | 0.091000  | 3.410000  |
| H                              | 1.805000  | 4.174000  | 3.850000  | H                              | -1.369000  | 1.113000  | 3.710000  |
| N                              | -2.209000 | 4.696000  | 3.332000  | N                              | -4.084000  | -1.247000 | 1.994000  |
| C                              | -2.977000 | 5.771000  | 2.713000  | C                              | -5.528000  | -1.442000 | 2.080000  |
| C                              | -3.423000 | 6.778000  | 3.782000  | C                              | -6.323000  | -0.130000 | 2.059000  |
| O                              | -4.556000 | 6.821000  | 4.182000  | O                              | -7.163000  | 0.026000  | 1.201000  |
| C                              | -4.169000 | 5.194000  | 1.966000  | C                              | -5.962000  | -2.354000 | 3.229000  |
| H                              | -2.665000 | 3.827000  | 3.509000  | H                              | -3.694000  | -1.263000 | 1.081000  |
| H                              | -2.315000 | 6.279000  | 2.023000  | H                              | -5.806000  | -1.919000 | 1.151000  |
| H                              | -4.728000 | 5.987000  | 1.485000  | H                              | -7.031000  | -2.525000 | 3.160000  |
| H                              | -3.830000 | 4.496000  | 1.209000  | H                              | -5.456000  | -3.310000 | 3.146000  |
| H                              | -4.842000 | 4.688000  | 2.647000  | H                              | -5.737000  | -1.929000 | 4.195000  |
| N                              | -2.450000 | 7.599000  | 4.217000  | N                              | -6.061000  | 0.751000  | 3.031000  |
| C                              | -2.690000 | 8.534000  | 5.293000  | C                              | -6.549000  | 2.127000  | 3.115000  |
| H                              | -1.515000 | 7.411000  | 3.930000  | C                              | -8.001000  | 2.263000  | 3.584000  |
| H                              | -3.607000 | 9.077000  | 5.111000  | O                              | -8.269000  | 3.034000  | 4.470000  |
| H                              | -2.777000 | 8.037000  | 6.255000  | C                              | -6.303000  | 2.937000  | 1.839000  |
| H                              | -1.866000 | 9.235000  | 5.335000  | H                              | -5.345000  | 0.503000  | 3.680000  |
| <u>Alanine tetrapeptide_09</u> |           |           |           | H                              | -5.979000  | 2.577000  | 3.915000  |
| C                              | -2.457000 | 3.010000  | 0.164000  | H                              | -6.601000  | 3.966000  | 2.010000  |
| C                              | -2.584000 | 1.527000  | -0.098000 | H                              | -5.248000  | 2.914000  | 1.595000  |
| O                              | -3.304000 | 1.092000  | -0.958000 | H                              | -6.865000  | 2.545000  | 1.003000  |
| H                              | -1.730000 | 3.423000  | -0.529000 | N                              | -8.930000  | 1.540000  | 2.939000  |
| H                              | -2.134000 | 3.232000  | 1.174000  | C                              | -10.329000 | 1.667000  | 3.276000  |
| H                              | -3.411000 | 3.480000  | -0.028000 | H                              | -8.648000  | 0.969000  | 2.173000  |
| N                              | -1.816000 | 0.731000  | 0.674000  | H                              | -10.898000 | 1.004000  | 2.637000  |
| C                              | -1.817000 | -0.703000 | 0.530000  | H                              | -10.506000 | 1.396000  | 4.310000  |
| C                              | -1.300000 | -1.294000 | 1.836000  | H                              | -10.680000 | 2.682000  | 3.132000  |
| O                              | -0.655000 | -0.641000 | 2.618000  | <u>Alanine tetrapeptide_08</u> |            |           |           |
| C                              | -0.950000 | -1.170000 | -0.647000 | C                              | -2.583000  | -2.588000 | 1.046000  |
| H                              | -1.253000 | 1.103000  | 1.406000  | C                              | -1.556000  | -1.499000 | 0.835000  |
| H                              | -2.836000 | -1.032000 | 0.366000  | O                              | -0.597000  | -1.639000 | 0.124000  |
| H                              | -0.985000 | -2.248000 | -0.761000 | H                              | -2.220000  | -3.500000 | 0.597000  |
| H                              | -1.319000 | -0.716000 | -1.557000 | H                              | -3.520000  | -2.305000 | 0.576000  |
| H                              | 0.082000  | -0.872000 | -0.496000 | H                              | -2.772000  | -2.747000 | 2.102000  |
| N                              | -1.585000 | -2.592000 | 2.034000  | N                              | -1.798000  | -0.345000 | 1.499000  |
| C                              | -1.088000 | -3.317000 | 3.179000  | C                              | -0.923000  | 0.793000  | 1.381000  |
| C                              | -1.060000 | -4.794000 | 2.809000  | C                              | -1.156000  | 1.681000  | 2.595000  |
| O                              | -1.754000 | -5.231000 | 1.921000  | O                              | -2.200000  | 1.659000  | 3.202000  |
| C                              | -1.960000 | -3.098000 | 4.422000  | C                              | -1.174000  | 1.594000  | 0.096000  |
| H                              | -2.112000 | -3.115000 | 1.370000  | H                              | -2.601000  | -0.237000 | 2.077000  |
| H                              | -0.081000 | -2.975000 | 3.388000  | H                              | 0.100000   | 0.437000  | 1.379000  |
| H                              | -1.565000 | -3.629000 | 5.282000  | H                              | -0.494000  | 2.436000  | 0.013000  |
| H                              | -1.987000 | -2.042000 | 4.653000  | H                              | -1.023000  | 0.946000  | -0.757000 |
| H                              | -2.971000 | -3.445000 | 4.238000  | H                              | -2.192000  | 1.969000  | 0.079000  |
| N                              | -0.249000 | -5.565000 | 3.551000  | N                              | -0.147000  | 2.512000  | 2.914000  |
| C                              | -0.147000 | -7.010000 | 3.371000  | C                              | -0.229000  | 3.468000  | 4.010000  |
| C                              | -1.251000 | -7.702000 | 4.182000  | C                              | -0.881000  | 4.765000  | 3.512000  |
| O                              | -1.036000 | -8.172000 | 5.267000  | O                              | -0.229000  | 5.756000  | 3.289000  |

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|                                |           |           |           |                                |           |           |           |  |  |  |  |
|--------------------------------|-----------|-----------|-----------|--------------------------------|-----------|-----------|-----------|--|--|--|--|
| H                              | -0.631000 | 3.875000  | 7.003000  | C                              | 1.233000  | -7.492000 | 3.789000  |  |  |  |  |
| H                              | 0.160000  | 2.605000  | 6.069000  | H                              | 0.260000  | -5.154000 | 4.301000  |  |  |  |  |
| <b>Alanine tetrapeptide 11</b> |           |           |           |                                |           |           |           |  |  |  |  |
| C                              | -3.471000 | 1.989000  | 4.097000  | H                              | -0.307000 | -7.204000 | 2.319000  |  |  |  |  |
| C                              | -3.546000 | 1.070000  | 2.902000  | H                              | 1.322000  | -8.558000 | 3.623000  |  |  |  |  |
| O                              | -4.357000 | 1.217000  | 2.028000  | H                              | 1.995000  | -6.983000 | 3.209000  |  |  |  |  |
| H                              | -2.809000 | 2.816000  | 3.860000  | H                              | 1.400000  | -7.313000 | 4.844000  |  |  |  |  |
| H                              | -3.093000 | 1.488000  | 4.981000  | N                              | -2.457000 | -7.721000 | 3.586000  |  |  |  |  |
| H                              | -4.456000 | 2.387000  | 4.294000  | C                              | -3.624000 | -8.226000 | 4.275000  |  |  |  |  |
| N                              | -2.634000 | 0.062000  | 2.862000  | H                              | -2.577000 | -7.177000 | 2.761000  |  |  |  |  |
| C                              | -2.456000 | -0.721000 | 1.650000  | H                              | -3.969000 | -7.543000 | 5.046000  |  |  |  |  |
| C                              | -3.614000 | -1.679000 | 1.377000  | H                              | -4.418000 | -8.372000 | 3.555000  |  |  |  |  |
| O                              | -3.884000 | -1.967000 | 0.239000  | H                              | -3.391000 | -9.172000 | 4.742000  |  |  |  |  |
| C                              | -1.151000 | -1.513000 | 1.720000  | <b>Alanine tetrapeptide 10</b> |           |           |           |  |  |  |  |
| H                              | -1.890000 | 0.075000  | 3.522000  | C                              | -2.337000 | 1.598000  | 0.163000  |  |  |  |  |
| H                              | -2.439000 | -0.062000 | 0.792000  | C                              | -1.840000 | 0.323000  | 0.792000  |  |  |  |  |
| H                              | -1.034000 | -2.101000 | 0.819000  | O                              | -2.306000 | -0.756000 | 0.519000  |  |  |  |  |
| H                              | -0.303000 | -0.840000 | 1.802000  | H                              | -2.769000 | 1.369000  | -0.801000 |  |  |  |  |
| H                              | -1.147000 | -2.186000 | 2.572000  | H                              | -1.549000 | 2.335000  | 0.051000  |  |  |  |  |
| N                              | -4.236000 | -2.213000 | 2.443000  | H                              | -3.108000 | 2.006000  | 0.808000  |  |  |  |  |
| C                              | -5.365000 | -3.126000 | 2.316000  | N                              | -0.845000 | 0.464000  | 1.706000  |  |  |  |  |
| C                              | -6.693000 | -2.351000 | 2.328000  | C                              | -0.412000 | -0.643000 | 2.547000  |  |  |  |  |
| O                              | -7.553000 | -2.595000 | 3.131000  | C                              | -1.382000 | -0.722000 | 3.727000  |  |  |  |  |
| C                              | -5.328000 | -4.178000 | 3.415000  | O                              | -1.133000 | -0.207000 | 4.792000  |  |  |  |  |
| H                              | -4.046000 | -1.826000 | 3.338000  | C                              | 1.025000  | -0.446000 | 3.002000  |  |  |  |  |
| H                              | -5.266000 | -3.599000 | 1.347000  | H                              | -0.641000 | 1.383000  | 2.031000  |  |  |  |  |
| H                              | -6.162000 | -4.858000 | 3.311000  | H                              | -0.499000 | -1.541000 | 1.951000  |  |  |  |  |
| H                              | -4.401000 | -4.738000 | 3.355000  | H                              | 1.342000  | -1.275000 | 3.624000  |  |  |  |  |
| H                              | -5.405000 | -3.721000 | 4.395000  | H                              | 1.677000  | -0.387000 | 2.138000  |  |  |  |  |
| N                              | -6.792000 | -1.388000 | 1.391000  | H                              | 1.126000  | 0.460000  | 3.588000  |  |  |  |  |
| C                              | -7.979000 | -0.555000 | 1.239000  | N                              | -2.555000 | -1.333000 | 3.467000  |  |  |  |  |
| C                              | -7.841000 | 0.322000  | -0.003000 | C                              | -3.703000 | -1.103000 | 4.328000  |  |  |  |  |
| O                              | -8.771000 | 0.476000  | -0.749000 | C                              | -3.917000 | 0.416000  | 4.458000  |  |  |  |  |
| C                              | -8.233000 | 0.337000  | 2.461000  | O                              | -3.901000 | 1.098000  | 3.467000  |  |  |  |  |
| H                              | -6.104000 | -1.371000 | 0.669000  | C                              | -3.624000 | -1.910000 | 5.623000  |  |  |  |  |
| H                              | -8.846000 | -1.178000 | 1.067000  | H                              | -2.745000 | -1.514000 | 2.503000  |  |  |  |  |
| H                              | -9.089000 | 0.976000  | 2.269000  | H                              | -4.566000 | -1.445000 | 3.767000  |  |  |  |  |
| H                              | -8.440000 | -0.272000 | 3.329000  | H                              | -4.541000 | -1.814000 | 6.197000  |  |  |  |  |
| H                              | -7.370000 | 0.962000  | 2.664000  | H                              | -3.499000 | -2.958000 | 5.376000  |  |  |  |  |
| N                              | -6.647000 | 0.922000  | -0.183000 | H                              | -2.782000 | -1.605000 | 6.231000  |  |  |  |  |
| C                              | -6.446000 | 1.850000  | -1.275000 | N                              | -4.141000 | 0.923000  | 5.685000  |  |  |  |  |
| H                              | -5.971000 | 0.908000  | 0.549000  | C                              | -4.358000 | 2.340000  | 5.910000  |  |  |  |  |
| H                              | -5.388000 | 2.066000  | -1.351000 | C                              | -3.081000 | 3.175000  | 6.062000  |  |  |  |  |
| H                              | -6.786000 | 1.408000  | -2.201000 | O                              | -3.187000 | 4.361000  | 6.244000  |  |  |  |  |
| H                              | -6.988000 | 2.778000  | -1.124000 | C                              | -5.257000 | 2.549000  | 7.127000  |  |  |  |  |
| <b>Alanine tetrapeptide 12</b> |           |           |           |                                |           |           |           |  |  |  |  |
| C                              | -2.973000 | 1.291000  | 1.949000  | H                              | -4.037000 | 0.335000  | 6.479000  |  |  |  |  |
| C                              | -2.031000 | 0.487000  | 1.085000  | H                              | -4.848000 | 2.731000  | 5.029000  |  |  |  |  |
| O                              | -2.274000 | 0.245000  | -0.069000 | H                              | -5.421000 | 3.606000  | 7.281000  |  |  |  |  |
| H                              | -3.671000 | 0.611000  | 2.429000  | H                              | -6.211000 | 2.056000  | 6.976000  |  |  |  |  |
| H                              | -3.534000 | 1.965000  | 1.318000  | H                              | -4.798000 | 2.144000  | 8.026000  |  |  |  |  |
| H                              | -2.454000 | 1.851000  | 2.718000  | N                              | -1.899000 | 2.547000  | 6.004000  |  |  |  |  |
|                                |           |           |           | C                              | -0.667000 | 3.302000  | 6.085000  |  |  |  |  |
|                                |           |           |           | H                              | -1.843000 | 1.589000  | 5.741000  |  |  |  |  |
|                                |           |           |           | H                              | -0.568000 | 3.993000  | 5.255000  |  |  |  |  |

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|                         |           |           |           |                         |           |           |           |  |  |  |  |
|-------------------------|-----------|-----------|-----------|-------------------------|-----------|-----------|-----------|--|--|--|--|
| N                       | -1.328000 | -0.321000 | 0.513000  | N                       | -0.910000 | 0.040000  | 1.698000  |  |  |  |  |
| C                       | 0.053000  | 0.123000  | 0.501000  | C                       | 0.060000  | -0.809000 | 1.023000  |  |  |  |  |
| C                       | 0.241000  | 1.636000  | 0.349000  | C                       | -0.380000 | -2.269000 | 1.160000  |  |  |  |  |
| O                       | 1.332000  | 2.095000  | 0.563000  | O                       | 0.002000  | -2.963000 | 2.067000  |  |  |  |  |
| C                       | 0.819000  | -0.598000 | -0.606000 | C                       | 1.449000  | -0.597000 | 1.603000  |  |  |  |  |
| H                       | -1.691000 | -0.811000 | -0.271000 | H                       | -0.807000 | 0.172000  | 2.679000  |  |  |  |  |
| H                       | 0.497000  | -0.110000 | 1.459000  | H                       | 0.044000  | -0.527000 | -0.021000 |  |  |  |  |
| H                       | 0.792000  | -1.671000 | -0.448000 | H                       | 2.174000  | -1.205000 | 1.075000  |  |  |  |  |
| H                       | 0.391000  | -0.379000 | -1.581000 | H                       | 1.734000  | 0.445000  | 1.508000  |  |  |  |  |
| H                       | 1.848000  | -0.268000 | -0.605000 | H                       | 1.479000  | -0.887000 | 2.647000  |  |  |  |  |
| N                       | -0.821000 | 2.363000  | -0.042000 | N                       | -1.235000 | -2.695000 | 0.213000  |  |  |  |  |
| C                       | -0.774000 | 3.807000  | -0.165000 | C                       | -1.827000 | -4.008000 | 0.277000  |  |  |  |  |
| C                       | -1.301000 | 4.556000  | 1.063000  | C                       | -2.256000 | -4.402000 | -1.129000 |  |  |  |  |
| O                       | -1.363000 | 5.760000  | 1.034000  | O                       | -2.526000 | -3.572000 | -1.962000 |  |  |  |  |
| C                       | -1.527000 | 4.259000  | -1.415000 | C                       | -3.037000 | -4.055000 | 1.221000  |  |  |  |  |
| H                       | -1.695000 | 1.914000  | -0.205000 | H                       | -1.613000 | -2.048000 | -0.446000 |  |  |  |  |
| H                       | 0.267000  | 4.086000  | -0.247000 | H                       | -1.071000 | -4.696000 | 0.636000  |  |  |  |  |
| H                       | -1.065000 | 3.832000  | -2.298000 | H                       | -3.466000 | -5.051000 | 1.269000  |  |  |  |  |
| H                       | -2.563000 | 3.935000  | -1.379000 | H                       | -2.720000 | -3.771000 | 2.216000  |  |  |  |  |
| H                       | -1.506000 | 5.337000  | -1.485000 | H                       | -3.803000 | -3.366000 | 0.882000  |  |  |  |  |
| N                       | -1.673000 | 3.834000  | 2.128000  | N                       | -2.353000 | -5.725000 | -1.357000 |  |  |  |  |
| C                       | -2.139000 | 4.483000  | 3.333000  | C                       | -2.822000 | -6.275000 | -2.624000 |  |  |  |  |
| H                       | -1.566000 | 2.846000  | 2.132000  | C                       | -4.356000 | -6.318000 | -2.626000 |  |  |  |  |
| H                       | -2.980000 | 5.130000  | 3.117000  | O                       | -4.960000 | -7.328000 | -2.378000 |  |  |  |  |
| H                       | -2.448000 | 3.719000  | 4.033000  | C                       | -2.229000 | -7.657000 | -2.845000 |  |  |  |  |
| H                       | -1.358000 | 5.084000  | 3.786000  | H                       | -2.167000 | -6.361000 | -0.615000 |  |  |  |  |
| <hr/>                   |           |           |           |                         |           |           |           |  |  |  |  |
| Alanine tetrapeptide 14 |           |           |           |                         |           |           |           |  |  |  |  |
| C                       | -5.341000 | 3.386000  | 3.270000  | H                       | -2.488000 | -5.598000 | -3.399000 |  |  |  |  |
| C                       | -5.527000 | 1.927000  | 3.604000  | H                       | -2.548000 | -8.052000 | -3.801000 |  |  |  |  |
| O                       | -6.133000 | 1.567000  | 4.583000  | H                       | -1.146000 | -7.602000 | -2.833000 |  |  |  |  |
| H                       | -6.294000 | 3.888000  | 3.376000  | H                       | -2.566000 | -8.347000 | -2.081000 |  |  |  |  |
| H                       | -4.954000 | 3.548000  | 2.272000  | N                       | -4.950000 | -5.146000 | -2.913000 |  |  |  |  |
| H                       | -4.657000 | 3.815000  | 3.993000  | C                       | -6.387000 | -4.995000 | -2.829000 |  |  |  |  |
| N                       | -4.977000 | 1.031000  | 2.752000  | H                       | -4.378000 | -4.331000 | -2.948000 |  |  |  |  |
| C                       | -4.979000 | -0.375000 | 3.092000  | H                       | -6.735000 | -4.973000 | -1.801000 |  |  |  |  |
| C                       | -4.083000 | -0.622000 | 4.309000  | H                       | -6.668000 | -4.069000 | -3.314000 |  |  |  |  |
| O                       | -2.955000 | -0.189000 | 4.323000  | H                       | -6.871000 | -5.819000 | -3.333000 |  |  |  |  |
| C                       | -4.468000 | -1.202000 | 1.915000  | <hr/>                   |           |           |           |  |  |  |  |
| H                       | -4.301000 | 1.349000  | 2.097000  | Alanine tetrapeptide 13 |           |           |           |  |  |  |  |
| H                       | -5.999000 | -0.655000 | 3.320000  | C                       | -5.032000 | -0.135000 | -2.018000 |  |  |  |  |
| H                       | -4.494000 | -2.258000 | 2.157000  | C                       | -4.247000 | 0.197000  | -0.774000 |  |  |  |  |
| H                       | -5.089000 | -1.034000 | 1.042000  | O                       | -3.820000 | 1.300000  | -0.557000 |  |  |  |  |
| H                       | -3.443000 | -0.936000 | 1.681000  | H                       | -4.729000 | 0.532000  | -2.812000 |  |  |  |  |
| N                       | -4.623000 | -1.364000 | 5.289000  | H                       | -6.086000 | 0.027000  | -1.818000 |  |  |  |  |
| C                       | -3.972000 | -1.792000 | 6.526000  | H                       | -4.896000 | -1.165000 | -2.329000 |  |  |  |  |
| C                       | -3.820000 | -0.682000 | 7.575000  | N                       | -4.044000 | -0.825000 | 0.101000  |  |  |  |  |
| O                       | -4.199000 | -0.882000 | 8.697000  | C                       | -3.587000 | -0.557000 | 1.456000  |  |  |  |  |
| C                       | -2.646000 | -2.522000 | 6.293000  | C                       | -2.158000 | -0.030000 | 1.529000  |  |  |  |  |
| H                       | -5.612000 | -1.471000 | 5.266000  | O                       | -1.811000 | 0.591000  | 2.501000  |  |  |  |  |
| H                       | -4.661000 | -2.485000 | 6.987000  | C                       | -3.701000 | -1.822000 | 2.304000  |  |  |  |  |
| H                       | -2.277000 | -2.890000 | 7.244000  | H                       | -4.534000 | -1.676000 | -0.057000 |  |  |  |  |
| H                       | -2.806000 | -3.370000 | 5.636000  | H                       | -4.188000 | 0.230000  | 1.895000  |  |  |  |  |
| H                       | -1.901000 | -1.877000 | 5.852000  | H                       | -3.355000 | -1.616000 | 3.308000  |  |  |  |  |
|                         |           |           |           | H                       | -4.733000 | -2.153000 | 2.358000  |  |  |  |  |
|                         |           |           |           | H                       | -3.099000 | -2.625000 | 1.890000  |  |  |  |  |

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|                                |           |           |           |                                |           |           |          |
|--------------------------------|-----------|-----------|-----------|--------------------------------|-----------|-----------|----------|
| N                              | 3.029000  | -2.634000 | 5.896000  | N                              | -3.228000 | 0.464000  | 7.178000 |
| C                              | 3.429000  | -1.505000 | 6.709000  | C                              | -2.909000 | 1.525000  | 8.115000 |
| H                              | 2.193000  | -3.122000 | 6.135000  | C                              | -3.968000 | 2.624000  | 8.232000 |
| H                              | 4.500000  | -1.375000 | 6.646000  | O                              | -3.824000 | 3.481000  | 9.067000 |
| H                              | 2.949000  | -0.585000 | 6.388000  | C                              | -1.561000 | 2.155000  | 7.762000 |
| H                              | 3.157000  | -1.703000 | 7.738000  | H                              | -2.852000 | 0.503000  | 6.255000 |
| <b>Alanine tetrapeptide_16</b> |           |           |           | H                              | -2.853000 | 1.087000  | 9.102000 |
| C                              | -1.778000 | 1.133000  | -1.434000 | H                              | -1.332000 | 2.944000  | 8.464000 |
| C                              | -1.752000 | 0.811000  | 0.042000  | H                              | -0.778000 | 1.406000  | 7.796000 |
| O                              | -2.561000 | 1.260000  | 0.815000  | H                              | -1.582000 | 2.582000  | 6.762000 |
| H                              | -2.673000 | 1.697000  | -1.651000 | N                              | -5.000000 | 2.606000  | 7.378000 |
| H                              | -1.760000 | 0.227000  | -2.030000 | C                              | -6.058000 | 3.589000  | 7.474000 |
| H                              | -0.908000 | 1.728000  | -1.697000 | H                              | -5.107000 | 1.861000  | 6.731000 |
| N                              | -0.753000 | -0.008000 | 0.444000  | H                              | -5.660000 | 4.592000  | 7.376000 |
| C                              | -0.601000 | -0.453000 | 1.823000  | H                              | -6.762000 | 3.401000  | 6.676000 |
| C                              | 0.196000  | 0.595000  | 2.611000  | H                              | -6.569000 | 3.524000  | 8.428000 |
| O                              | 1.365000  | 0.460000  | 2.841000  | <b>Alanine tetrapeptide_15</b> |           |           |          |
| C                              | 0.082000  | -1.812000 | 1.866000  | C                              | -4.108000 | 0.798000  | 0.912000 |
| H                              | -0.068000 | -0.298000 | -0.216000 | C                              | -2.731000 | 0.178000  | 0.951000 |
| H                              | -1.596000 | -0.523000 | 2.241000  | O                              | -2.462000 | -0.834000 | 0.353000 |
| H                              | 0.174000  | -2.154000 | 2.890000  | H                              | -4.540000 | 0.816000  | 1.907000 |
| H                              | -0.500000 | -2.536000 | 1.307000  | H                              | -4.736000 | 0.210000  | 0.259000 |
| H                              | 1.082000  | -1.755000 | 1.453000  | H                              | -4.059000 | 1.819000  | 0.547000 |
| N                              | -0.533000 | 1.671000  | 3.008000  | N                              | -1.818000 | 0.832000  | 1.704000 |
| C                              | 0.101000  | 2.877000  | 3.508000  | C                              | -0.432000 | 0.399000  | 1.820000 |
| C                              | -0.366000 | 3.275000  | 4.908000  | C                              | -0.329000 | -0.678000 | 2.906000 |
| O                              | -0.058000 | 4.355000  | 5.356000  | O                              | 0.018000  | -0.428000 | 4.027000 |
| C                              | -0.073000 | 4.047000  | 2.538000  | C                              | 0.469000  | 1.584000  | 2.134000 |
| H                              | -1.437000 | 1.765000  | 2.588000  | H                              | -2.104000 | 1.622000  | 2.236000 |
| H                              | 1.155000  | 2.653000  | 3.613000  | H                              | -0.157000 | -0.038000 | 0.869000 |
| H                              | 0.399000  | 4.935000  | 2.935000  | H                              | 1.502000  | 1.264000  | 2.197000 |
| H                              | 0.377000  | 3.798000  | 1.584000  | H                              | 0.382000  | 2.331000  | 1.353000 |
| H                              | -1.125000 | 4.262000  | 2.375000  | H                              | 0.207000  | 2.025000  | 3.088000 |
| N                              | -1.083000 | 2.378000  | 5.600000  | N                              | -0.664000 | -1.932000 | 2.505000 |
| C                              | -1.582000 | 2.635000  | 6.945000  | C                              | -0.880000 | -2.972000 | 3.495000 |
| C                              | -0.508000 | 2.280000  | 7.985000  | C                              | 0.410000  | -3.509000 | 4.108000 |
| O                              | -0.584000 | 1.287000  | 8.660000  | O                              | 0.373000  | -4.044000 | 5.189000 |
| C                              | -2.863000 | 1.850000  | 7.186000  | C                              | -1.657000 | -4.132000 | 2.870000 |
| H                              | -1.236000 | 1.483000  | 5.196000  | H                              | -1.145000 | -2.007000 | 1.633000 |
| H                              | -1.778000 | 3.698000  | 7.006000  | H                              | -1.434000 | -2.571000 | 4.334000 |
| H                              | -3.252000 | 2.059000  | 8.174000  | H                              | -1.816000 | -4.905000 | 3.611000 |
| H                              | -3.610000 | 2.126000  | 6.449000  | H                              | -2.621000 | -3.789000 | 2.511000 |
| H                              | -2.677000 | 0.784000  | 7.131000  | H                              | -1.110000 | -4.559000 | 2.035000 |
| N                              | 0.504000  | 3.161000  | 8.074000  | N                              | 1.527000  | -3.427000 | 3.365000 |
| C                              | 1.643000  | 2.907000  | 8.930000  | C                              | 2.819000  | -3.904000 | 3.839000 |
| H                              | 0.550000  | 3.892000  | 7.398000  | C                              | 3.504000  | -2.793000 | 4.647000 |
| H                              | 2.245000  | 3.805000  | 8.981000  | O                              | 4.385000  | -2.122000 | 4.176000 |
| H                              | 1.309000  | 2.649000  | 9.925000  | C                              | 3.680000  | -4.352000 | 2.667000 |
| H                              | 2.257000  | 2.093000  | 8.557000  | H                              | 1.502000  | -2.866000 | 2.545000 |
| <b>Alanine tetrapeptide_17</b> |           |           |           | H                              | 2.618000  | -4.741000 | 4.495000 |
| C                              | -4.706000 | 1.289000  | 1.665000  | H                              | 4.631000  | -4.728000 | 3.023000 |
| C                              | -3.767000 | 0.119000  | 1.527000  | H                              | 3.175000  | -5.138000 | 2.117000 |
|                                |           |           |           | H                              | 3.888000  | -3.522000 | 2.003000 |

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|                         |           |           |           |                         |           |           |           |
|-------------------------|-----------|-----------|-----------|-------------------------|-----------|-----------|-----------|
| H                       | -0.492000 | 0.035000  | 2.998000  | O                       | -3.996000 | -0.795000 | 0.770000  |
| H                       | 1.860000  | 0.418000  | 3.633000  | H                       | -4.590000 | 1.917000  | 0.789000  |
| H                       | 1.715000  | -0.907000 | 2.501000  | H                       | -4.520000 | 1.878000  | 2.554000  |
| H                       | 2.299000  | 0.649000  | 1.931000  | H                       | -5.721000 | 0.916000  | 1.680000  |
| N                       | 0.761000  | 2.881000  | 2.804000  | N                       | -2.647000 | 0.146000  | 2.279000  |
| C                       | 0.468000  | 4.302000  | 2.865000  | C                       | -1.606000 | -0.861000 | 2.138000  |
| C                       | 0.106000  | 4.861000  | 1.487000  | C                       | -1.107000 | -0.870000 | 0.685000  |
| O                       | -0.680000 | 5.762000  | 1.382000  | O                       | -0.633000 | 0.139000  | 0.226000  |
| C                       | 1.651000  | 5.064000  | 3.455000  | C                       | -2.022000 | -2.201000 | 2.740000  |
| H                       | 1.620000  | 2.543000  | 3.169000  | H                       | -2.416000 | 0.987000  | 2.753000  |
| H                       | -0.415000 | 4.468000  | 3.467000  | H                       | -0.756000 | -0.486000 | 2.695000  |
| H                       | 1.423000  | 6.122000  | 3.485000  | H                       | -1.214000 | -2.922000 | 2.665000  |
| H                       | 1.852000  | 4.729000  | 4.467000  | H                       | -2.250000 | -2.062000 | 3.790000  |
| H                       | 2.547000  | 4.925000  | 2.857000  | H                       | -2.905000 | -2.599000 | 2.257000  |
| N                       | 0.767000  | 4.323000  | 0.430000  | N                       | -1.195000 | -2.011000 | -0.018000 |
| C                       | 0.260000  | 4.483000  | -0.924000 | C                       | -0.723000 | -2.100000 | -1.389000 |
| C                       | -0.825000 | 3.419000  | -1.113000 | C                       | -1.494000 | -1.246000 | -2.400000 |
| O                       | -0.523000 | 2.268000  | -1.342000 | O                       | -0.984000 | -1.025000 | -3.466000 |
| C                       | 1.380000  | 4.324000  | -1.940000 | C                       | -0.730000 | -3.557000 | -1.844000 |
| H                       | 1.269000  | 3.481000  | 0.600000  | H                       | -1.737000 | -2.759000 | 0.346000  |
| H                       | -0.166000 | 5.473000  | -0.988000 | H                       | 0.287000  | -1.714000 | -1.425000 |
| H                       | 1.000000  | 4.464000  | -2.946000 | H                       | -0.361000 | -3.620000 | -2.858000 |
| H                       | 2.151000  | 5.062000  | -1.754000 | H                       | -0.095000 | -4.158000 | -1.200000 |
| H                       | 1.811000  | 3.332000  | -1.884000 | H                       | -1.736000 | -3.967000 | -1.821000 |
| N                       | -2.085000 | 3.840000  | -0.962000 | N                       | -2.719000 | -0.818000 | -2.046000 |
| C                       | -3.183000 | 2.894000  | -0.882000 | C                       | -3.521000 | 0.040000  | -2.895000 |
| H                       | -2.212000 | 4.733000  | -0.539000 | C                       | -3.414000 | 1.530000  | -2.554000 |
| H                       | -3.136000 | 2.216000  | -1.723000 | O                       | -4.110000 | 2.323000  | -3.136000 |
| H                       | -3.143000 | 2.324000  | 0.038000  | C                       | -4.984000 | -0.400000 | -2.868000 |
| H                       | -4.114000 | 3.443000  | -0.926000 | H                       | -3.076000 | -1.030000 | -1.140000 |
| <hr/>                   |           |           |           | H                       | -3.133000 | -0.052000 | -3.900000 |
| Alanine tetrapeptide 19 |           |           |           | H                       | -5.579000 | 0.261000  | -3.483000 |
| C                       | -3.350000 | -0.464000 | 0.958000  | H                       | -5.070000 | -1.414000 | -3.242000 |
| C                       | -2.463000 | 0.197000  | 1.986000  | H                       | -5.374000 | -0.376000 | -1.855000 |
| O                       | -2.905000 | 0.837000  | 2.906000  | N                       | -2.539000 | 1.896000  | -1.599000 |
| H                       | -3.165000 | -1.532000 | 0.923000  | C                       | -2.287000 | 3.296000  | -1.339000 |
| H                       | -3.153000 | -0.054000 | -0.028000 | H                       | -1.892000 | 1.231000  | -1.239000 |
| H                       | -4.382000 | -0.283000 | 1.221000  | H                       | -1.639000 | 3.370000  | -0.475000 |
| N                       | -1.132000 | 0.024000  | 1.806000  | H                       | -1.808000 | 3.783000  | -2.182000 |
| C                       | -0.141000 | 0.563000  | 2.726000  | H                       | -3.215000 | 3.814000  | -1.137000 |
| C                       | 0.189000  | 2.010000  | 2.337000  | <hr/>                   |           |           |           |
| O                       | 1.198000  | 2.287000  | 1.729000  | Alanine tetrapeptide 18 |           |           |           |
| C                       | 1.106000  | -0.308000 | 2.732000  | C                       | -0.996000 | -1.510000 | -0.690000 |
| H                       | -0.807000 | -0.449000 | 0.994000  | C                       | -0.540000 | -1.197000 | 0.717000  |
| H                       | -0.595000 | 0.566000  | 3.708000  | O                       | -0.454000 | -2.050000 | 1.563000  |
| H                       | 1.828000  | 0.073000  | 3.444000  | H                       | -0.305000 | -2.223000 | -1.123000 |
| H                       | 0.845000  | -1.322000 | 3.014000  | H                       | -1.053000 | -0.634000 | -1.322000 |
| H                       | 1.580000  | -0.315000 | 1.758000  | H                       | -1.968000 | -1.986000 | -0.635000 |
| N                       | -0.728000 | 2.916000  | 2.705000  | N                       | -0.221000 | 0.094000  | 0.954000  |
| C                       | -0.691000 | 4.314000  | 2.288000  | C                       | 0.155000  | 0.531000  | 2.282000  |
| C                       | 0.225000  | 5.121000  | 3.223000  | C                       | -0.190000 | 2.018000  | 2.372000  |
| O                       | -0.213000 | 5.894000  | 4.031000  | O                       | -1.267000 | 2.422000  | 2.020000  |
| C                       | -2.101000 | 4.886000  | 2.278000  | C                       | 1.603000  | 0.162000  | 2.608000  |
| H                       | -1.561000 | 2.579000  | 3.141000  | H                       | -0.410000 | 0.777000  | 0.251000  |

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|                                |           |           |           |                                |           |           |           |
|--------------------------------|-----------|-----------|-----------|--------------------------------|-----------|-----------|-----------|
| H                              | 1.233000  | 3.769000  | -0.077000 | H                              | -0.270000 | 4.347000  | 1.289000  |
| H                              | 0.864000  | 2.621000  | -2.226000 | H                              | -2.085000 | 5.916000  | 1.945000  |
| H                              | -0.805000 | 3.182000  | -2.274000 | H                              | -2.731000 | 4.309000  | 1.608000  |
| H                              | 0.504000  | 4.344000  | -2.392000 | H                              | -2.528000 | 4.870000  | 3.273000  |
| N                              | -1.487000 | 4.663000  | 0.998000  | N                              | 1.537000  | 4.870000  | 3.053000  |
| C                              | -2.214000 | 5.808000  | 1.500000  | C                              | 2.581000  | 5.516000  | 3.833000  |
| H                              | -1.526000 | 3.816000  | 1.518000  | C                              | 3.961000  | 5.186000  | 3.272000  |
| H                              | -2.704000 | 6.327000  | 0.687000  | O                              | 4.844000  | 5.998000  | 3.323000  |
| H                              | -2.959000 | 5.457000  | 2.201000  | C                              | 2.541000  | 5.123000  | 5.316000  |
| H                              | -1.558000 | 6.512000  | 2.002000  | H                              | 1.782000  | 4.263000  | 2.304000  |
| <b>Alanine tetrapeptide 21</b> |           |           |           | H                              | 2.479000  | 6.590000  | 3.753000  |
| C                              | -3.288000 | 1.513000  | 1.071000  | H                              | 3.348000  | 5.619000  | 5.845000  |
| C                              | -2.008000 | 0.920000  | 1.601000  | H                              | 1.598000  | 5.422000  | 5.751000  |
| O                              | -1.693000 | 1.037000  | 2.762000  | H                              | 2.658000  | 4.049000  | 5.432000  |
| H                              | -3.237000 | 2.588000  | 1.195000  | N                              | 4.147000  | 3.945000  | 2.772000  |
| H                              | -4.107000 | 1.143000  | 1.676000  | C                              | 5.452000  | 3.524000  | 2.305000  |
| H                              | -3.475000 | 1.273000  | 0.031000  | H                              | 3.429000  | 3.262000  | 2.842000  |
| N                              | -1.227000 | 0.270000  | 0.713000  | H                              | 6.153000  | 3.406000  | 3.125000  |
| C                              | 0.000000  | -0.420000 | 1.084000  | H                              | 5.345000  | 2.579000  | 1.789000  |
| C                              | 1.227000  | 0.506000  | 1.059000  | H                              | 5.854000  | 4.258000  | 1.620000  |
| O                              | 2.236000  | 0.194000  | 0.489000  | <b>Alanine tetrapeptide 20</b> |           |           |           |
| C                              | 0.210000  | -1.631000 | 0.186000  | C                              | -4.254000 | -2.957000 | 3.458000  |
| H                              | -1.497000 | 0.254000  | -0.243000 | C                              | -3.826000 | -1.900000 | 2.471000  |
| H                              | -0.126000 | -0.743000 | 2.111000  | O                              | -3.218000 | -2.180000 | 1.467000  |
| H                              | 1.109000  | -2.159000 | 0.472000  | H                              | -3.461000 | -3.687000 | 3.550000  |
| H                              | -0.639000 | -2.301000 | 0.271000  | H                              | -5.130000 | -3.459000 | 3.062000  |
| H                              | 0.325000  | -1.333000 | -0.850000 | H                              | -4.495000 | -2.554000 | 4.434000  |
| N                              | 1.067000  | 1.666000  | 1.738000  | N                              | -4.186000 | -0.630000 | 2.760000  |
| C                              | 2.155000  | 2.608000  | 1.969000  | C                              | -3.950000 | 0.482000  | 1.850000  |
| C                              | 1.644000  | 3.768000  | 2.818000  | C                              | -2.537000 | 1.035000  | 2.067000  |
| O                              | 2.323000  | 4.261000  | 3.679000  | O                              | -2.336000 | 2.065000  | 2.659000  |
| C                              | 2.742000  | 3.176000  | 0.672000  | C                              | -5.003000 | 1.561000  | 2.047000  |
| H                              | 0.295000  | 1.690000  | 2.372000  | H                              | -4.635000 | -0.436000 | 3.625000  |
| H                              | 2.947000  | 2.144000  | 2.544000  | H                              | -4.008000 | 0.082000  | 0.846000  |
| H                              | 3.489000  | 3.924000  | 0.914000  | H                              | -4.843000 | 2.373000  | 1.349000  |
| H                              | 3.205000  | 2.390000  | 0.094000  | H                              | -5.990000 | 1.147000  | 1.878000  |
| H                              | 1.967000  | 3.641000  | 0.072000  | H                              | -4.951000 | 1.975000  | 3.046000  |
| N                              | 0.412000  | 4.218000  | 2.507000  | N                              | -1.543000 | 0.289000  | 1.539000  |
| C                              | -0.215000 | 5.310000  | 3.209000  | C                              | -0.156000 | 0.538000  | 1.897000  |
| C                              | -1.718000 | 5.169000  | 2.998000  | C                              | 0.412000  | 1.838000  | 1.328000  |
| O                              | -2.162000 | 4.722000  | 1.969000  | O                              | 1.385000  | 2.323000  | 1.836000  |
| C                              | 0.256000  | 6.679000  | 2.705000  | C                              | 0.711000  | -0.634000 | 1.440000  |
| H                              | -0.099000 | 3.824000  | 1.750000  | H                              | -1.791000 | -0.620000 | 1.205000  |
| H                              | 0.028000  | 5.216000  | 4.261000  | H                              | -0.072000 | 0.655000  | 2.971000  |
| H                              | -0.222000 | 7.483000  | 3.256000  | H                              | 0.381000  | -1.554000 | 1.910000  |
| H                              | 1.327000  | 6.757000  | 2.838000  | H                              | 0.658000  | -0.758000 | 0.363000  |
| H                              | 0.019000  | 6.791000  | 1.653000  | H                              | 1.740000  | -0.451000 | 1.717000  |
| N                              | -2.496000 | 5.625000  | 3.992000  | N                              | -0.199000 | 2.347000  | 0.239000  |
| C                              | -3.941000 | 5.562000  | 3.912000  | C                              | 0.221000  | 3.575000  | -0.404000 |
| H                              | -2.074000 | 5.876000  | 4.855000  | C                              | -0.589000 | 4.808000  | 0.011000  |
| H                              | -4.358000 | 6.149000  | 4.719000  | O                              | -0.402000 | 5.854000  | -0.557000 |
| H                              | -4.275000 | 5.971000  | 2.968000  | C                              | 0.196000  | 3.421000  | -1.923000 |
| H                              | -4.300000 | 4.542000  | 3.992000  | H                              | -0.994000 | 1.868000  | -0.116000 |

|                                |           |           |           |  |  |  |  |
|--------------------------------|-----------|-----------|-----------|--|--|--|--|
| C                              | -5.362000 | 0.348000  | 2.404000  |  |  |  |  |
| O                              | -6.460000 | 0.313000  | 1.918000  |  |  |  |  |
| C                              | -4.049000 | 2.242000  | 3.537000  |  |  |  |  |
| H                              | -5.691000 | -0.080000 | 5.266000  |  |  |  |  |
| H                              | -6.054000 | 1.620000  | 3.893000  |  |  |  |  |
| H                              | -4.356000 | 2.925000  | 2.751000  |  |  |  |  |
| H                              | -3.973000 | 2.799000  | 4.464000  |  |  |  |  |
| H                              | -3.075000 | 1.845000  | 3.297000  |  |  |  |  |
| N                              | -4.303000 | -0.314000 | 1.877000  |  |  |  |  |
| C                              | -4.548000 | -1.384000 | 0.944000  |  |  |  |  |
| C                              | -5.215000 | -2.567000 | 1.659000  |  |  |  |  |
| O                              | -5.101000 | -2.741000 | 2.847000  |  |  |  |  |
| C                              | -3.230000 | -1.830000 | 0.306000  |  |  |  |  |
| H                              | -3.503000 | -0.410000 | 2.467000  |  |  |  |  |
| H                              | -5.222000 | -1.019000 | 0.180000  |  |  |  |  |
| H                              | -3.397000 | -2.618000 | -0.419000 |  |  |  |  |
| H                              | -2.764000 | -0.990000 | -0.195000 |  |  |  |  |
| H                              | -2.547000 | -2.203000 | 1.062000  |  |  |  |  |
| N                              | -5.890000 | -3.414000 | 0.864000  |  |  |  |  |
| C                              | -6.550000 | -4.589000 | 1.382000  |  |  |  |  |
| C                              | -6.732000 | -5.561000 | 0.221000  |  |  |  |  |
| O                              | -6.764000 | -5.178000 | -0.920000 |  |  |  |  |
| C                              | -7.909000 | -4.255000 | 2.012000  |  |  |  |  |
| H                              | -6.018000 | -3.227000 | -0.105000 |  |  |  |  |
| H                              | -5.908000 | -5.031000 | 2.135000  |  |  |  |  |
| H                              | -8.381000 | -5.141000 | 2.425000  |  |  |  |  |
| H                              | -7.764000 | -3.536000 | 2.808000  |  |  |  |  |
| H                              | -8.572000 | -3.825000 | 1.269000  |  |  |  |  |
| N                              | -6.892000 | -6.853000 | 0.559000  |  |  |  |  |
| C                              | -7.142000 | -7.869000 | -0.444000 |  |  |  |  |
| H                              | -6.820000 | -7.120000 | 1.511000  |  |  |  |  |
| H                              | -8.045000 | -7.649000 | -0.999000 |  |  |  |  |
| H                              | -6.318000 | -7.933000 | -1.145000 |  |  |  |  |
| H                              | -7.257000 | -8.823000 | 0.054000  |  |  |  |  |
| <b>Alanine tetrapeptide 24</b> |           |           |           |  |  |  |  |
| C                              | -4.224000 | 1.504000  | 1.734000  |  |  |  |  |
| C                              | -3.613000 | 0.248000  | 2.303000  |  |  |  |  |
| O                              | -4.288000 | -0.618000 | 2.805000  |  |  |  |  |
| H                              | -3.541000 | 2.345000  | 1.758000  |  |  |  |  |
| H                              | -5.119000 | 1.740000  | 2.290000  |  |  |  |  |
| H                              | -4.502000 | 1.311000  | 0.702000  |  |  |  |  |
| N                              | -2.270000 | 0.137000  | 2.207000  |  |  |  |  |
| C                              | -1.591000 | -1.108000 | 2.532000  |  |  |  |  |
| C                              | -2.197000 | -2.242000 | 1.687000  |  |  |  |  |
| O                              | -2.264000 | -2.109000 | 0.496000  |  |  |  |  |
| C                              | -1.499000 | -1.330000 | 4.040000  |  |  |  |  |
| H                              | -1.798000 | 0.766000  | 1.600000  |  |  |  |  |
| H                              | -0.584000 | -1.006000 | 2.142000  |  |  |  |  |
| H                              | -0.916000 | -2.217000 | 4.265000  |  |  |  |  |
| H                              | -0.999000 | -0.482000 | 4.493000  |  |  |  |  |
| H                              | -2.480000 | -1.419000 | 4.490000  |  |  |  |  |
| N                              | -2.601000 | -3.362000 | 2.322000  |  |  |  |  |
| C                              | -3.183000 | -4.481000 | 1.608000  |  |  |  |  |
| <b>Alanine tetrapeptide 22</b> |           |           |           |  |  |  |  |
| C                              | -3.683000 | 2.426000  | 3.033000  |  |  |  |  |
| C                              | -2.789000 | 1.229000  | 3.268000  |  |  |  |  |
| O                              | -2.583000 | 0.780000  | 4.365000  |  |  |  |  |
| H                              | -3.142000 | 3.213000  | 2.519000  |  |  |  |  |
| H                              | -4.037000 | 2.790000  | 3.986000  |  |  |  |  |
| H                              | -4.531000 | 2.145000  | 2.416000  |  |  |  |  |
| N                              | -2.244000 | 0.695000  | 2.153000  |  |  |  |  |
| C                              | -1.335000 | -0.421000 | 2.212000  |  |  |  |  |
| C                              | -0.493000 | -0.394000 | 0.942000  |  |  |  |  |
| O                              | -0.797000 | 0.268000  | -0.014000 |  |  |  |  |
| C                              | -2.070000 | -1.763000 | 2.346000  |  |  |  |  |
| H                              | -2.371000 | 1.119000  | 1.261000  |  |  |  |  |
| H                              | -0.686000 | -0.291000 | 3.071000  |  |  |  |  |
| H                              | -1.374000 | -2.587000 | 2.468000  |  |  |  |  |
| H                              | -2.705000 | -1.725000 | 3.220000  |  |  |  |  |
| H                              | -2.678000 | -1.960000 | 1.470000  |  |  |  |  |
| N                              | 0.596000  | -1.198000 | 0.946000  |  |  |  |  |
| C                              | 1.529000  | -1.222000 | -0.166000 |  |  |  |  |
| C                              | 1.061000  | -2.053000 | -1.361000 |  |  |  |  |
| O                              | 1.645000  | -1.951000 | -2.411000 |  |  |  |  |
| C                              | 2.888000  | -1.738000 | 0.302000  |  |  |  |  |
| H                              | 0.860000  | -1.641000 | 1.796000  |  |  |  |  |
| H                              | 1.634000  | -0.217000 | -0.551000 |  |  |  |  |
| H                              | 3.576000  | -1.753000 | -0.532000 |  |  |  |  |
| H                              | 3.289000  | -1.095000 | 1.078000  |  |  |  |  |
| H                              | 2.806000  | -2.748000 | 0.696000  |  |  |  |  |
| N                              | 0.042000  | -2.901000 | -1.163000 |  |  |  |  |
| C                              | -0.516000 | -3.682000 | -2.240000 |  |  |  |  |
| C                              | -1.960000 | -4.002000 | -1.871000 |  |  |  |  |
| O                              | -2.334000 | -3.997000 | -0.725000 |  |  |  |  |
| C                              | 0.273000  | -4.975000 | -2.480000 |  |  |  |  |
| H                              | -0.451000 | -2.915000 | -0.300000 |  |  |  |  |
| H                              | -0.493000 | -3.082000 | -3.143000 |  |  |  |  |
| H                              | -0.141000 | -5.541000 | -3.308000 |  |  |  |  |
| H                              | 1.299000  | -4.724000 | -2.714000 |  |  |  |  |
| H                              | 0.254000  | -5.597000 | -1.592000 |  |  |  |  |
| N                              | -2.766000 | -4.327000 | -2.895000 |  |  |  |  |
| C                              | -4.149000 | -4.700000 | -2.679000 |  |  |  |  |
| H                              | -2.423000 | -4.256000 | -3.824000 |  |  |  |  |
| H                              | -4.592000 | -4.948000 | -3.634000 |  |  |  |  |
| H                              | -4.215000 | -5.560000 | -2.025000 |  |  |  |  |
| H                              | -4.706000 | -3.886000 | -2.230000 |  |  |  |  |
| <b>Alanine tetrapeptide 23</b> |           |           |           |  |  |  |  |
| C                              | -3.853000 | -1.532000 | 6.106000  |  |  |  |  |
| C                              | -3.747000 | -0.490000 | 5.020000  |  |  |  |  |
| O                              | -2.734000 | -0.345000 | 4.382000  |  |  |  |  |
| H                              | -4.529000 | -1.240000 | 6.901000  |  |  |  |  |
| H                              | -2.867000 | -1.715000 | 6.510000  |  |  |  |  |
| H                              | -4.220000 | -2.445000 | 5.649000  |  |  |  |  |
| N                              | -4.868000 | 0.242000  | 4.810000  |  |  |  |  |
| C                              | -5.105000 | 1.148000  | 3.686000  |  |  |  |  |

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|                         |           |           |           |                         |           |           |           |
|-------------------------|-----------|-----------|-----------|-------------------------|-----------|-----------|-----------|
| C                       | 4.813000  | -3.260000 | 1.635000  | C                       | -4.683000 | -4.359000 | 1.316000  |
| O                       | 4.028000  | -2.345000 | 1.567000  | O                       | -5.200000 | -5.238000 | 0.661000  |
| C                       | 5.447000  | -4.469000 | -0.479000 | C                       | -2.915000 | -5.783000 | 2.362000  |
| H                       | 2.881000  | -4.046000 | -0.221000 | H                       | -2.624000 | -3.376000 | 3.315000  |
| H                       | 4.903000  | -5.395000 | 1.387000  | H                       | -2.714000 | -4.523000 | 0.635000  |
| H                       | 6.504000  | -4.392000 | -0.250000 | H                       | -3.334000 | -6.616000 | 1.816000  |
| H                       | 5.283000  | -5.364000 | -1.068000 | H                       | -1.847000 | -5.933000 | 2.478000  |
| H                       | 5.171000  | -3.605000 | -1.076000 | H                       | -3.369000 | -5.763000 | 3.350000  |
| N                       | 5.925000  | -3.216000 | 2.384000  | N                       | -5.338000 | -3.316000 | 1.831000  |
| C                       | 6.218000  | -2.087000 | 3.247000  | C                       | -6.727000 | -2.942000 | 1.561000  |
| H                       | 6.433000  | -4.059000 | 2.524000  | C                       | -7.773000 | -3.810000 | 2.273000  |
| H                       | 7.261000  | -2.128000 | 3.533000  | O                       | -8.648000 | -3.278000 | 2.908000  |
| H                       | 6.034000  | -1.168000 | 2.711000  | C                       | -7.045000 | -2.811000 | 0.069000  |
| H                       | 5.603000  | -2.096000 | 4.141000  | H                       | -4.811000 | -2.615000 | 2.302000  |
| <hr/>                   |           |           |           | H                       | -6.843000 | -1.973000 | 2.022000  |
| Alanine tetrapeptide 26 |           |           |           | H                       | -8.060000 | -2.445000 | -0.049000 |
| C                       | -1.189000 | 0.145000  | 5.515000  | H                       | -6.366000 | -2.099000 | -0.387000 |
| C                       | -2.424000 | 0.782000  | 4.934000  | H                       | -6.950000 | -3.756000 | -0.447000 |
| O                       | -2.409000 | 1.912000  | 4.498000  | N                       | -7.692000 | -5.139000 | 2.114000  |
| H                       | -0.923000 | 0.685000  | 6.416000  | C                       | -8.682000 | -6.015000 | 2.700000  |
| H                       | -0.380000 | 0.262000  | 4.806000  | H                       | -6.976000 | -5.511000 | 1.530000  |
| H                       | -1.324000 | -0.901000 | 5.758000  | H                       | -8.408000 | -7.039000 | 2.482000  |
| N                       | -3.557000 | 0.050000  | 4.944000  | H                       | -8.726000 | -5.884000 | 3.775000  |
| C                       | -4.778000 | 0.524000  | 4.308000  | H                       | -9.670000 | -5.822000 | 2.298000  |
| C                       | -4.500000 | 0.775000  | 2.818000  | <hr/>                   |           |           |           |
| O                       | -4.138000 | -0.140000 | 2.131000  | Alanine tetrapeptide 25 |           |           |           |
| C                       | -5.438000 | 1.652000  | 5.097000  | C                       | -3.000000 | 1.417000  | 0.606000  |
| H                       | -3.483000 | -0.924000 | 5.122000  | C                       | -1.551000 | 1.001000  | 0.733000  |
| H                       | -5.452000 | -0.324000 | 4.300000  | O                       | -0.642000 | 1.724000  | 0.422000  |
| H                       | -6.367000 | 1.955000  | 4.625000  | H                       | -3.525000 | 0.756000  | -0.077000 |
| H                       | -5.670000 | 1.299000  | 6.095000  | H                       | -3.042000 | 2.429000  | 0.232000  |
| H                       | -4.787000 | 2.511000  | 5.190000  | H                       | -3.497000 | 1.364000  | 1.570000  |
| N                       | -4.694000 | 2.017000  | 2.325000  | N                       | -1.355000 | -0.242000 | 1.224000  |
| C                       | -4.431000 | 2.309000  | 0.930000  | C                       | -0.039000 | -0.824000 | 1.339000  |
| C                       | -2.958000 | 2.221000  | 0.517000  | C                       | -0.215000 | -2.341000 | 1.327000  |
| O                       | -2.693000 | 1.998000  | -0.631000 | O                       | -1.293000 | -2.854000 | 1.491000  |
| C                       | -4.970000 | 3.695000  | 0.580000  | C                       | 0.690000  | -0.364000 | 2.609000  |
| H                       | -4.822000 | 2.772000  | 2.957000  | H                       | -2.122000 | -0.851000 | 1.401000  |
| H                       | -4.926000 | 1.562000  | 0.327000  | H                       | 0.548000  | -0.533000 | 0.476000  |
| H                       | -4.790000 | 3.903000  | -0.466000 | H                       | 1.697000  | -0.766000 | 2.659000  |
| H                       | -6.037000 | 3.743000  | 0.767000  | H                       | 0.756000  | 0.716000  | 2.600000  |
| H                       | -4.479000 | 4.465000  | 1.169000  | H                       | 0.144000  | -0.676000 | 3.493000  |
| N                       | -2.034000 | 2.501000  | 1.471000  | N                       | 0.911000  | -3.058000 | 1.124000  |
| C                       | -0.612000 | 2.243000  | 1.237000  | C                       | 0.900000  | -4.513000 | 1.266000  |
| C                       | 0.146000  | 2.447000  | 2.548000  | C                       | 2.340000  | -4.953000 | 1.493000  |
| O                       | 0.874000  | 1.595000  | 2.987000  | O                       | 2.690000  | -5.496000 | 2.501000  |
| C                       | -0.013000 | 3.134000  | 0.146000  | C                       | 0.258000  | -5.213000 | 0.066000  |
| H                       | -2.336000 | 2.399000  | 2.417000  | H                       | 1.790000  | -2.586000 | 1.183000  |
| H                       | -0.466000 | 1.204000  | 0.970000  | H                       | 0.362000  | -4.780000 | 2.165000  |
| H                       | 1.057000  | 2.963000  | 0.089000  | H                       | 0.304000  | -6.290000 | 0.195000  |
| H                       | -0.458000 | 2.902000  | -0.809000 | H                       | -0.779000 | -4.917000 | -0.010000 |
| H                       | -0.181000 | 4.183000  | 0.365000  | H                       | 0.761000  | -4.956000 | -0.861000 |
| N                       | -0.009000 | 3.654000  | 3.128000  | N                       | 3.213000  | -4.672000 | 0.479000  |
| C                       | 0.529000  | 3.935000  | 4.441000  | C                       | 4.613000  | -4.533000 | 0.801000  |

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|                                |            |           |           |                                |           |           |           |
|--------------------------------|------------|-----------|-----------|--------------------------------|-----------|-----------|-----------|
| H                              | -8.025000  | 2.457000  | 1.394000  | H                              | -0.748000 | 4.229000  | 2.796000  |
| H                              | -6.505000  | 2.960000  | 2.149000  | H                              | -0.089000 | 3.508000  | 5.223000  |
| N                              | -5.588000  | 0.436000  | 2.379000  | H                              | 1.523000  | 3.521000  | 4.514000  |
| C                              | -4.877000  | -0.796000 | 2.075000  | H                              | 0.584000  | 5.008000  | 4.578000  |
| C                              | -5.590000  | -1.971000 | 2.754000  | <u>Alanine tetrapeptide 27</u> |           |           |           |
| O                              | -5.264000  | -2.361000 | 3.846000  | C                              | -1.913000 | -0.282000 | -1.189000 |
| C                              | -3.429000  | -0.700000 | 2.531000  | C                              | -1.128000 | 0.557000  | -0.210000 |
| H                              | -5.356000  | 0.912000  | 3.222000  | O                              | -0.043000 | 1.005000  | -0.489000 |
| H                              | -4.923000  | -0.926000 | 1.003000  | H                              | -1.568000 | -1.309000 | -1.117000 |
| H                              | -2.894000  | -1.608000 | 2.278000  | H                              | -1.709000 | 0.073000  | -2.189000 |
| H                              | -2.943000  | 0.137000  | 2.043000  | H                              | -2.979000 | -0.261000 | -1.001000 |
| H                              | -3.371000  | -0.578000 | 3.605000  | N                              | -1.700000 | 0.747000  | 0.998000  |
| N                              | -6.601000  | -2.510000 | 2.048000  | C                              | -1.057000 | 1.509000  | 2.061000  |
| C                              | -7.423000  | -3.563000 | 2.595000  | C                              | -0.089000 | 0.601000  | 2.827000  |
| C                              | -7.875000  | -4.459000 | 1.449000  | O                              | -0.388000 | 0.073000  | 3.862000  |
| O                              | -8.139000  | -3.989000 | 0.368000  | C                              | -2.098000 | 2.110000  | 2.992000  |
| C                              | -8.653000  | -3.021000 | 3.334000  | H                              | -2.555000 | 0.286000  | 1.209000  |
| H                              | -6.909000  | -2.067000 | 1.207000  | H                              | -0.491000 | 2.296000  | 1.582000  |
| H                              | -6.807000  | -4.119000 | 3.288000  | H                              | -1.612000 | 2.706000  | 3.754000  |
| H                              | -9.255000  | -3.829000 | 3.738000  | H                              | -2.773000 | 2.745000  | 2.429000  |
| H                              | -8.330000  | -2.391000 | 4.154000  | H                              | -2.662000 | 1.334000  | 3.493000  |
| H                              | -9.268000  | -2.435000 | 2.660000  | N                              | 1.120000  | 0.444000  | 2.239000  |
| N                              | -7.994000  | -5.764000 | 1.749000  | C                              | 2.083000  | -0.510000 | 2.752000  |
| C                              | -8.536000  | -6.819000 | 0.890000  | C                              | 2.846000  | -0.016000 | 3.980000  |
| C                              | -7.572000  | -7.268000 | -0.217000 | O                              | 3.481000  | -0.799000 | 4.640000  |
| O                              | -7.263000  | -8.429000 | -0.297000 | C                              | 3.082000  | -0.882000 | 1.658000  |
| C                              | -9.928000  | -6.499000 | 0.339000  | H                              | 1.215000  | 0.766000  | 1.298000  |
| H                              | -7.651000  | -6.059000 | 2.634000  | H                              | 1.563000  | -1.398000 | 3.089000  |
| H                              | -8.614000  | -7.689000 | 1.526000  | H                              | 3.796000  | -1.596000 | 2.045000  |
| H                              | -10.294000 | -7.357000 | -0.214000 | H                              | 2.567000  | -1.321000 | 0.811000  |
| H                              | -10.611000 | -6.303000 | 1.159000  | H                              | 3.623000  | -0.006000 | 1.313000  |
| H                              | -9.916000  | -5.640000 | -0.314000 | N                              | 2.809000  | 1.301000  | 4.230000  |
| N                              | -7.147000  | -6.334000 | -1.080000 | C                              | 3.429000  | 1.870000  | 5.399000  |
| C                              | -6.241000  | -6.675000 | -2.155000 | C                              | 2.648000  | 3.126000  | 5.770000  |
| H                              | -7.430000  | -5.388000 | -0.948000 | O                              | 1.976000  | 3.715000  | 4.962000  |
| H                              | -5.293000  | -7.035000 | -1.772000 | C                              | 4.905000  | 2.210000  | 5.157000  |
| H                              | -6.664000  | -7.448000 | -2.786000 | H                              | 2.221000  | 1.899000  | 3.697000  |
| H                              | -6.066000  | -5.789000 | -2.751000 | H                              | 3.362000  | 1.147000  | 6.204000  |
| <u>Alanine tetrapeptide 29</u> |            |           |           | H                              | 5.370000  | 2.614000  | 6.050000  |
| C                              | -2.741000  | 1.816000  | -0.874000 | H                              | 5.432000  | 1.308000  | 4.872000  |
| C                              | -1.893000  | 0.947000  | 0.027000  | H                              | 4.997000  | 2.939000  | 4.359000  |
| O                              | -0.780000  | 0.600000  | -0.263000 | N                              | 2.804000  | 3.552000  | 7.037000  |
| H                              | -3.673000  | 1.317000  | -1.119000 | C                              | 2.131000  | 4.737000  | 7.527000  |
| H                              | -2.190000  | 2.019000  | -1.781000 | H                              | 3.268000  | 2.962000  | 7.687000  |
| H                              | -2.981000  | 2.752000  | -0.379000 | H                              | 1.072000  | 4.563000  | 7.682000  |
| N                              | -2.477000  | 0.587000  | 1.194000  | H                              | 2.582000  | 5.031000  | 8.465000  |
| C                              | -1.812000  | -0.271000 | 2.143000  | H                              | 2.244000  | 5.541000  | 6.814000  |
| C                              | -2.888000  | -0.931000 | 2.997000  | <u>Alanine tetrapeptide 28</u> |           |           |           |
| O                              | -3.975000  | -0.416000 | 3.140000  | C                              | -7.252000 | 2.175000  | 2.094000  |
| C                              | -0.829000  | 0.500000  | 3.037000  | C                              | -6.630000 | 0.876000  | 1.634000  |
| H                              | -3.412000  | 0.853000  | 1.407000  | O                              | -7.028000 | 0.275000  | 0.671000  |
| H                              | -1.266000  | -1.030000 | 1.595000  | H                              | -7.688000 | 2.054000  | 3.081000  |
| H                              | -0.323000  | -0.160000 | 3.734000  |                                |           |           |           |

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|       |            |           |           |       |           |           |           |
|-------|------------|-----------|-----------|-------|-----------|-----------|-----------|
| H     | -5.019000  | -2.376000 | 5.553000  | H     | -0.085000 | 0.975000  | 2.411000  |
| H     | -5.817000  | -0.805000 | 5.455000  | H     | -1.353000 | 1.264000  | 3.603000  |
| N     | -7.393000  | -1.423000 | 2.376000  | N     | -2.542000 | -2.081000 | 3.593000  |
| C     | -8.447000  | -0.748000 | 1.625000  | C     | -3.438000 | -2.843000 | 4.460000  |
| C     | -9.383000  | -0.016000 | 2.596000  | C     | -3.397000 | -2.271000 | 5.886000  |
| O     | -10.447000 | -0.472000 | 2.917000  | O     | -2.831000 | -2.840000 | 6.779000  |
| C     | -9.207000  | -1.754000 | 0.776000  | C     | -3.048000 | -4.313000 | 4.444000  |
| H     | -7.539000  | -2.374000 | 2.629000  | H     | -1.623000 | -2.437000 | 3.455000  |
| H     | -7.960000  | -0.019000 | 0.991000  | H     | -4.438000 | -2.720000 | 4.063000  |
| H     | -9.967000  | -1.251000 | 0.192000  | H     | -3.723000 | -4.885000 | 5.067000  |
| H     | -8.525000  | -2.260000 | 0.102000  | H     | -3.093000 | -4.698000 | 3.431000  |
| H     | -9.708000  | -2.484000 | 1.400000  | H     | -2.049000 | -4.451000 | 4.841000  |
| N     | -8.910000  | 1.159000  | 3.052000  | N     | -4.020000 | -1.084000 | 6.019000  |
| C     | -9.621000  | 1.909000  | 4.063000  | C     | -4.111000 | -0.363000 | 7.281000  |
| H     | -7.962000  | 1.389000  | 2.849000  | C     | -5.009000 | 0.863000  | 7.139000  |
| H     | -9.573000  | 1.427000  | 5.035000  | O     | -5.676000 | 1.234000  | 8.066000  |
| H     | -9.182000  | 2.895000  | 4.138000  | C     | -2.742000 | 0.090000  | 7.805000  |
| H     | -10.661000 | 2.005000  | 3.785000  | H     | -4.550000 | -0.766000 | 5.239000  |
| <hr/> |            |           |           | H     | -4.584000 | -0.989000 | 8.027000  |
| C     | -0.917000  | 0.861000  | -0.956000 | H     | -2.875000 | 0.645000  | 8.727000  |
| C     | -1.176000  | 0.649000  | 0.518000  | H     | -2.116000 | -0.768000 | 7.997000  |
| O     | -1.205000  | 1.557000  | 1.305000  | H     | -2.248000 | 0.732000  | 7.081000  |
| H     | -1.488000  | 0.175000  | -1.572000 | N     | -4.975000 | 1.521000  | 5.959000  |
| H     | 0.138000   | 0.701000  | -1.156000 | C     | -5.716000 | 2.753000  | 5.775000  |
| H     | -1.168000  | 1.880000  | -1.211000 | H     | -4.327000 | 1.252000  | 5.256000  |
| N     | -1.343000  | -0.638000 | 0.896000  | H     | -5.274000 | 3.574000  | 6.329000  |
| C     | -1.503000  | -1.004000 | 2.281000  | H     | -5.721000 | 2.998000  | 4.721000  |
| C     | -1.054000  | -2.449000 | 2.436000  | H     | -6.734000 | 2.624000  | 6.114000  |
| O     | -1.114000  | -3.230000 | 1.515000  | <hr/> |           |           |           |
| C     | -2.954000  | -0.858000 | 2.758000  | C     | -1.949000 | 1.865000  | 0.896000  |
| H     | -1.299000  | -1.380000 | 0.235000  | C     | -1.837000 | 0.439000  | 1.383000  |
| H     | -0.869000  | -0.358000 | 2.877000  | O     | -1.924000 | -0.500000 | 0.644000  |
| H     | -3.050000  | -1.117000 | 3.807000  | H     | -1.368000 | 2.558000  | 1.495000  |
| H     | -3.265000  | 0.169000  | 2.624000  | H     | -2.992000 | 2.165000  | 0.941000  |
| H     | -3.606000  | -1.504000 | 2.180000  | H     | -1.624000 | 1.909000  | -0.133000 |
| N     | -0.657000  | -2.815000 | 3.667000  | N     | -1.687000 | 0.288000  | 2.728000  |
| C     | -0.160000  | -4.155000 | 3.938000  | C     | -1.533000 | -1.019000 | 3.335000  |
| C     | 1.032000   | -4.442000 | 3.009000  | C     | -2.849000 | -1.764000 | 3.557000  |
| O     | 1.930000   | -3.648000 | 2.955000  | O     | -2.830000 | -2.928000 | 3.867000  |
| C     | -1.291000  | -5.181000 | 3.971000  | C     | -0.793000 | -0.901000 | 4.666000  |
| H     | -0.411000  | -2.097000 | 4.308000  | H     | -1.535000 | 1.094000  | 3.289000  |
| H     | 0.285000   | -4.110000 | 4.925000  | H     | -0.968000 | -1.646000 | 2.659000  |
| H     | -0.920000  | -6.156000 | 4.268000  | H     | -0.686000 | -1.881000 | 5.110000  |
| H     | -2.029000  | -4.872000 | 4.702000  | H     | 0.192000  | -0.474000 | 4.513000  |
| H     | -1.785000  | -5.262000 | 3.011000  | H     | -1.341000 | -0.271000 | 5.362000  |
| N     | 1.029000   | -5.603000 | 2.325000  | N     | -3.981000 | -1.052000 | 3.439000  |
| C     | 2.106000   | -5.983000 | 1.430000  | C     | -5.279000 | -1.670000 | 3.545000  |
| C     | 1.962000   | -5.472000 | -0.007000 | C     | -6.257000 | -0.815000 | 2.749000  |
| O     | 2.818000   | -5.748000 | -0.809000 | O     | -6.023000 | 0.347000  | 2.504000  |
| C     | 2.265000   | -7.502000 | 1.418000  | C     | -5.742000 | -1.788000 | 5.003000  |
| H     | 0.208000   | -6.162000 | 2.325000  | H     | -3.955000 | -0.117000 | 3.107000  |
| H     | 3.010000   | -5.527000 | 1.807000  | H     | -5.225000 | -2.661000 | 3.110000  |
| H     | 3.071000   | -7.779000 | 0.753000  | H     | -6.709000 | -2.276000 | 5.075000  |

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|                                |           |           |           |                                |           |           |           |
|--------------------------------|-----------|-----------|-----------|--------------------------------|-----------|-----------|-----------|
| C                              | -2.045000 | 2.892000  | -0.281000 | H                              | 2.482000  | -7.863000 | 2.417000  |
| C                              | -2.250000 | 1.458000  | 0.158000  | H                              | 1.357000  | -7.985000 | 1.066000  |
| O                              | -2.727000 | 0.630000  | -0.566000 | N                              | 0.863000  | -4.766000 | -0.316000 |
| H                              | -2.895000 | 3.487000  | 0.042000  | C                              | 0.709000  | -4.191000 | -1.633000 |
| H                              | -1.995000 | 2.921000  | -1.360000 | H                              | 0.264000  | -4.437000 | 0.407000  |
| H                              | -1.145000 | 3.322000  | 0.143000  | H                              | 0.922000  | -4.935000 | -2.388000 |
| N                              | -1.866000 | 1.185000  | 1.434000  | H                              | -0.314000 | -3.856000 | -1.744000 |
| C                              | -2.194000 | -0.086000 | 2.072000  | H                              | 1.377000  | -3.350000 | -1.789000 |
| C                              | -1.992000 | 0.017000  | 3.580000  | <u>Alanine tetrapeptide_32</u> |           |           |           |
| O                              | -2.767000 | -0.486000 | 4.348000  | C                              | -3.227000 | 0.713000  | 0.656000  |
| C                              | -1.356000 | -1.246000 | 1.521000  | C                              | -1.794000 | 0.894000  | 1.101000  |
| H                              | -1.688000 | 1.965000  | 2.025000  | O                              | -1.437000 | 1.905000  | 1.654000  |
| H                              | -3.243000 | -0.309000 | 1.929000  | H                              | -3.609000 | 1.671000  | 0.332000  |
| H                              | -1.615000 | -2.163000 | 2.041000  | H                              | -3.813000 | 0.387000  | 1.510000  |
| H                              | -1.558000 | -1.372000 | 0.467000  | H                              | -3.337000 | -0.014000 | -0.140000 |
| H                              | -0.296000 | -1.056000 | 1.655000  | N                              | -0.971000 | -0.150000 | 0.864000  |
| N                              | -0.889000 | 0.681000  | 3.985000  | C                              | 0.447000  | -0.233000 | 1.217000  |
| C                              | -0.561000 | 0.861000  | 5.380000  | C                              | 0.647000  | -0.441000 | 2.725000  |
| C                              | 0.329000  | 2.097000  | 5.467000  | O                              | 0.989000  | -1.517000 | 3.137000  |
| O                              | 0.958000  | 2.483000  | 4.511000  | C                              | 1.288000  | 0.904000  | 0.636000  |
| C                              | 0.148000  | -0.361000 | 5.979000  | H                              | -1.375000 | -0.974000 | 0.484000  |
| H                              | -0.213000 | 1.008000  | 3.331000  | H                              | 0.790000  | -1.164000 | 0.789000  |
| H                              | -1.482000 | 1.036000  | 5.922000  | H                              | 2.332000  | 0.738000  | 0.881000  |
| H                              | 0.365000  | -0.212000 | 7.031000  | H                              | 1.188000  | 0.913000  | -0.444000 |
| H                              | -0.494000 | -1.227000 | 5.879000  | H                              | 0.992000  | 1.871000  | 1.015000  |
| H                              | 1.080000  | -0.550000 | 5.456000  | N                              | 0.437000  | 0.633000  | 3.518000  |
| N                              | 0.384000  | 2.698000  | 6.664000  | C                              | 0.422000  | 0.503000  | 4.971000  |
| C                              | 1.233000  | 3.843000  | 6.905000  | C                              | -0.151000 | 1.770000  | 5.598000  |
| C                              | 1.458000  | 3.931000  | 8.412000  | O                              | -0.958000 | 1.710000  | 6.489000  |
| O                              | 0.716000  | 3.389000  | 9.189000  | C                              | 1.813000  | 0.228000  | 5.552000  |
| C                              | 0.605000  | 5.141000  | 6.379000  | H                              | -0.078000 | 1.385000  | 3.107000  |
| H                              | -0.136000 | 2.362000  | 7.444000  | H                              | -0.246000 | -0.297000 | 5.263000  |
| H                              | 2.179000  | 3.678000  | 6.403000  | H                              | 1.754000  | 0.188000  | 6.635000  |
| H                              | 1.261000  | 5.990000  | 6.540000  | H                              | 2.183000  | -0.720000 | 5.188000  |
| H                              | 0.424000  | 5.043000  | 5.317000  | H                              | 2.512000  | 1.009000  | 5.270000  |
| H                              | -0.337000 | 5.332000  | 6.883000  | N                              | 0.328000  | 2.936000  | 5.124000  |
| N                              | 2.503000  | 4.680000  | 8.803000  | C                              | -0.108000 | 4.211000  | 5.642000  |
| C                              | 2.800000  | 4.888000  | 10.207000 | C                              | 0.254000  | 5.267000  | 4.602000  |
| H                              | 3.118000  | 5.053000  | 8.119000  | O                              | 1.170000  | 5.104000  | 3.839000  |
| H                              | 3.094000  | 3.963000  | 10.688000 | C                              | 0.554000  | 4.552000  | 6.984000  |
| H                              | 3.611000  | 5.600000  | 10.285000 | H                              | 1.031000  | 2.961000  | 4.419000  |
| H                              | 1.934000  | 5.282000  | 10.721000 | H                              | -1.182000 | 4.174000  | 5.777000  |
| <u>Alanine tetrapeptide_34</u> |           |           |           | H                              | 0.199000  | 5.505000  | 7.364000  |
| C                              | -2.694000 | 1.748000  | -0.327000 | H                              | 0.314000  | 3.782000  | 7.706000  |
| C                              | -3.027000 | 0.429000  | 0.332000  | H                              | 1.631000  | 4.606000  | 6.867000  |
| O                              | -3.076000 | -0.594000 | -0.305000 | N                              | -0.474000 | 6.397000  | 4.637000  |
| H                              | -3.609000 | 2.172000  | -0.729000 | C                              | -0.217000 | 7.488000  | 3.718000  |
| H                              | -2.017000 | 1.562000  | -1.148000 | H                              | -1.283000 | 6.432000  | 5.210000  |
| H                              | -2.254000 | 2.463000  | 0.358000  | H                              | -0.782000 | 8.353000  | 4.040000  |
| N                              | -3.282000 | 0.484000  | 1.657000  | H                              | 0.836000  | 7.732000  | 3.721000  |
| C                              | -3.767000 | -0.607000 | 2.499000  | H                              | -0.507000 | 7.232000  | 2.705000  |
| C                              | -2.690000 | -1.641000 | 2.853000  | <u>Alanine tetrapeptide_33</u> |           |           |           |
| O                              | -2.458000 | -1.862000 | 4.020000  |                                |           |           |           |

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|                                |           |           |           |                                |           |           |           |
|--------------------------------|-----------|-----------|-----------|--------------------------------|-----------|-----------|-----------|
| C                              | -2.901000 | 3.025000  | 5.018000  | C                              | -5.039000 | -1.277000 | 1.969000  |
| H                              | -2.220000 | -0.163000 | 4.761000  | H                              | -3.170000 | 1.362000  | 2.108000  |
| H                              | -1.129000 | 2.133000  | 5.834000  | H                              | -3.997000 | -0.153000 | 3.452000  |
| H                              | -2.994000 | 3.755000  | 5.815000  | H                              | -5.375000 | -2.022000 | 2.682000  |
| H                              | -2.381000 | 3.479000  | 4.188000  | H                              | -5.822000 | -0.534000 | 1.858000  |
| H                              | -3.895000 | 2.736000  | 4.693000  | H                              | -4.879000 | -1.754000 | 1.013000  |
| N                              | -3.870000 | 0.474000  | 6.567000  | N                              | -2.101000 | -2.281000 | 1.835000  |
| C                              | -4.675000 | -0.048000 | 7.669000  | C                              | -0.986000 | -3.219000 | 1.929000  |
| C                              | -4.069000 | -1.375000 | 8.146000  | C                              | -1.364000 | -4.616000 | 2.440000  |
| O                              | -4.500000 | -2.434000 | 7.777000  | O                              | -1.023000 | -5.580000 | 1.792000  |
| C                              | -6.116000 | -0.230000 | 7.220000  | C                              | 0.221000  | -2.667000 | 2.695000  |
| H                              | -4.222000 | 0.361000  | 5.643000  | H                              | -2.385000 | -2.017000 | 0.914000  |
| H                              | -4.622000 | 0.674000  | 8.472000  | H                              | -0.684000 | -3.402000 | 0.908000  |
| H                              | -6.720000 | -0.591000 | 8.043000  | H                              | 1.031000  | -3.387000 | 2.657000  |
| H                              | -6.522000 | 0.717000  | 6.880000  | H                              | 0.558000  | -1.747000 | 2.228000  |
| H                              | -6.181000 | -0.961000 | 6.424000  | H                              | -0.017000 | -2.463000 | 3.729000  |
| N                              | -3.028000 | -1.245000 | 8.987000  | N                              | -2.004000 | -4.685000 | 3.614000  |
| C                              | -2.274000 | -2.397000 | 9.432000  | C                              | -2.506000 | -5.893000 | 4.264000  |
| H                              | -2.638000 | -0.335000 | 9.107000  | C                              | -1.431000 | -6.770000 | 4.919000  |
| H                              | -1.665000 | -2.109000 | 10.278000 | O                              | -1.586000 | -7.142000 | 6.054000  |
| H                              | -2.953000 | -3.181000 | 9.734000  | C                              | -3.421000 | -6.734000 | 3.367000  |
| H                              | -1.629000 | -2.788000 | 8.651000  | H                              | -2.174000 | -3.821000 | 4.084000  |
| <hr/>                          |           |           |           | H                              | -3.088000 | -5.541000 | 5.103000  |
| <u>Alanine tetrapeptide_36</u> |           |           |           | H                              | -3.823000 | -7.561000 | 3.943000  |
| C                              | -0.379000 | 3.626000  | 1.062000  | H                              | -4.248000 | -6.126000 | 3.015000  |
| C                              | -1.423000 | 2.561000  | 0.822000  | H                              | -2.892000 | -7.126000 | 2.510000  |
| O                              | -2.283000 | 2.667000  | -0.004000 | N                              | -0.373000 | -7.120000 | 4.172000  |
| H                              | -0.134000 | 3.725000  | 2.113000  | C                              | 0.642000  | -8.006000 | 4.696000  |
| H                              | -0.745000 | 4.567000  | 0.680000  | H                              | -0.353000 | -6.850000 | 3.213000  |
| H                              | 0.527000  | 3.362000  | 0.524000  | H                              | 0.258000  | -9.010000 | 4.850000  |
| N                              | -1.328000 | 1.454000  | 1.617000  | H                              | 1.462000  | -8.048000 | 3.991000  |
| C                              | -2.083000 | 0.254000  | 1.306000  | H                              | 1.011000  | -7.639000 | 5.645000  |
| C                              | -3.542000 | 0.299000  | 1.753000  | <hr/>                          |           |           |           |
| O                              | -4.306000 | -0.543000 | 1.346000  | <u>Alanine tetrapeptide_35</u> |           |           |           |
| C                              | -1.412000 | -0.967000 | 1.934000  | C                              | -0.112000 | -0.044000 | -1.089000 |
| H                              | -0.517000 | 1.354000  | 2.184000  | C                              | -0.640000 | -0.654000 | 0.190000  |
| H                              | -2.130000 | 0.132000  | 0.232000  | O                              | -1.144000 | -1.745000 | 0.228000  |
| H                              | -1.984000 | -1.855000 | 1.705000  | H                              | -0.414000 | -0.663000 | -1.921000 |
| H                              | -0.408000 | -1.088000 | 1.542000  | H                              | 0.971000  | 0.004000  | -1.054000 |
| H                              | -1.354000 | -0.866000 | 3.014000  | H                              | -0.489000 | 0.964000  | -1.225000 |
| N                              | -3.899000 | 1.248000  | 2.633000  | N                              | -0.490000 | 0.112000  | 1.294000  |
| C                              | -5.265000 | 1.382000  | 3.117000  | C                              | -0.957000 | -0.320000 | 2.587000  |
| C                              | -6.085000 | 2.212000  | 2.118000  | C                              | -1.171000 | 0.928000  | 3.436000  |
| O                              | -6.306000 | 3.383000  | 2.321000  | O                              | -0.637000 | 1.972000  | 3.173000  |
| C                              | -5.274000 | 2.016000  | 4.499000  | C                              | 0.032000  | -1.273000 | 3.272000  |
| H                              | -3.252000 | 1.975000  | 2.831000  | H                              | -0.105000 | 1.028000  | 1.241000  |
| H                              | -5.679000 | 0.384000  | 3.163000  | H                              | -1.904000 | -0.831000 | 2.456000  |
| H                              | -6.288000 | 2.091000  | 4.873000  | H                              | -0.345000 | -1.623000 | 4.228000  |
| H                              | -4.693000 | 1.409000  | 5.185000  | H                              | 0.186000  | -2.133000 | 2.635000  |
| H                              | -4.864000 | 3.018000  | 4.468000  | H                              | 0.982000  | -0.777000 | 3.435000  |
| N                              | -6.492000 | 1.534000  | 1.036000  | N                              | -1.989000 | 0.770000  | 4.505000  |
| C                              | -7.250000 | 2.065000  | -0.097000 | C                              | -2.113000 | 1.812000  | 5.521000  |
| C                              | -6.419000 | 2.940000  | -1.045000 | C                              | -2.781000 | 1.246000  | 6.768000  |
| O                              | -6.346000 | 2.648000  | -2.211000 | O                              | -2.363000 | 1.508000  | 7.866000  |

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|                                |           |           |           |                                |           |           |           |  |  |  |  |
|--------------------------------|-----------|-----------|-----------|--------------------------------|-----------|-----------|-----------|--|--|--|--|
| H                              | 1.615000  | 3.148000  | -2.658000 | C                              | -8.553000 | 2.750000  | 0.317000  |  |  |  |  |
| H                              | -0.119000 | 3.252000  | -2.969000 | H                              | -6.113000 | 0.617000  | 0.923000  |  |  |  |  |
| <b>Alanine tetrapeptide 38</b> |           |           |           |                                |           |           |           |  |  |  |  |
| C                              | 1.110000  | 0.587000  | 0.838000  | H                              | -7.496000 | 1.202000  | -0.698000 |  |  |  |  |
| C                              | -0.268000 | 0.474000  | 1.452000  | H                              | -9.102000 | 3.036000  | -0.574000 |  |  |  |  |
| O                              | -0.897000 | 1.434000  | 1.795000  | H                              | -9.164000 | 2.060000  | 0.889000  |  |  |  |  |
| H                              | 1.262000  | -0.141000 | 0.049000  | H                              | -8.374000 | 3.630000  | 0.916000  |  |  |  |  |
| H                              | 1.859000  | 0.421000  | 1.607000  | N                              | -5.849000 | 4.035000  | -0.518000 |  |  |  |  |
| H                              | 1.235000  | 1.586000  | 0.446000  | C                              | -4.970000 | 4.874000  | -1.304000 |  |  |  |  |
| N                              | -0.732000 | -0.800000 | 1.591000  | H                              | -5.907000 | 4.175000  | 0.466000  |  |  |  |  |
| C                              | -1.940000 | -1.091000 | 2.357000  | H                              | -5.409000 | 5.059000  | -2.274000 |  |  |  |  |
| C                              | -2.036000 | -2.587000 | 2.631000  | H                              | -4.843000 | 5.818000  | -0.788000 |  |  |  |  |
| O                              | -2.430000 | -3.006000 | 3.685000  | H                              | -3.998000 | 4.413000  | -1.441000 |  |  |  |  |
| C                              | -3.212000 | -0.625000 | 1.640000  | <b>Alanine tetrapeptide 37</b> |           |           |           |  |  |  |  |
| H                              | -0.059000 | -1.527000 | 1.504000  | C                              | -3.974000 | 0.076000  | 0.966000  |  |  |  |  |
| H                              | -1.887000 | -0.615000 | 3.328000  | C                              | -3.407000 | -0.478000 | 2.254000  |  |  |  |  |
| H                              | -4.082000 | -0.892000 | 2.232000  | O                              | -4.057000 | -1.154000 | 3.002000  |  |  |  |  |
| H                              | -3.189000 | 0.447000  | 1.513000  | H                              | -4.836000 | -0.510000 | 0.683000  |  |  |  |  |
| H                              | -3.298000 | -1.093000 | 0.664000  | H                              | -3.240000 | 0.070000  | 0.167000  |  |  |  |  |
| N                              | -1.678000 | -3.399000 | 1.611000  | H                              | -4.288000 | 1.103000  | 1.128000  |  |  |  |  |
| C                              | -1.724000 | -4.837000 | 1.720000  | N                              | -2.112000 | -0.142000 | 2.501000  |  |  |  |  |
| C                              | -0.690000 | -5.390000 | 0.746000  | C                              | -1.504000 | -0.395000 | 3.807000  |  |  |  |  |
| O                              | -0.348000 | -4.754000 | -0.225000 | C                              | -0.249000 | 0.465000  | 3.882000  |  |  |  |  |
| C                              | -3.114000 | -5.405000 | 1.405000  | O                              | -0.092000 | 1.304000  | 4.722000  |  |  |  |  |
| H                              | -1.445000 | -3.029000 | 0.717000  | C                              | -1.197000 | -1.876000 | 4.039000  |  |  |  |  |
| H                              | -1.455000 | -5.102000 | 2.734000  | H                              | -1.725000 | 0.601000  | 1.957000  |  |  |  |  |
| H                              | -3.133000 | -6.486000 | 1.507000  | H                              | -2.157000 | -0.039000 | 4.593000  |  |  |  |  |
| H                              | -3.833000 | -4.983000 | 2.094000  | H                              | -0.704000 | -2.006000 | 4.998000  |  |  |  |  |
| H                              | -3.406000 | -5.151000 | 0.391000  | H                              | -2.119000 | -2.439000 | 4.042000  |  |  |  |  |
| N                              | -0.214000 | -6.614000 | 1.019000  | H                              | -0.550000 | -2.273000 | 3.264000  |  |  |  |  |
| C                              | 0.769000  | -7.288000 | 0.175000  | N                              | 0.686000  | 0.227000  | 2.911000  |  |  |  |  |
| C                              | 0.052000  | -8.037000 | -0.957000 | C                              | 1.601000  | 1.283000  | 2.561000  |  |  |  |  |
| O                              | -0.129000 | -9.224000 | -0.911000 | C                              | 0.838000  | 2.391000  | 1.824000  |  |  |  |  |
| C                              | 1.616000  | -8.231000 | 1.016000  | O                              | -0.220000 | 2.163000  | 1.277000  |  |  |  |  |
| H                              | -0.564000 | -7.107000 | 1.809000  | C                              | 2.730000  | 0.739000  | 1.681000  |  |  |  |  |
| H                              | 1.389000  | -6.513000 | -0.255000 | H                              | 0.380000  | -0.335000 | 2.148000  |  |  |  |  |
| H                              | 2.369000  | -8.706000 | 0.399000  | H                              | 2.008000  | 1.687000  | 3.478000  |  |  |  |  |
| H                              | 2.110000  | -7.680000 | 1.808000  | H                              | 3.442000  | 1.516000  | 1.429000  |  |  |  |  |
| H                              | 1.006000  | -9.017000 | 1.445000  | H                              | 3.251000  | -0.051000 | 2.208000  |  |  |  |  |
| N                              | -0.355000 | -7.261000 | -1.978000 | H                              | 2.336000  | 0.335000  | 0.754000  |  |  |  |  |
| C                              | -1.145000 | -7.806000 | -3.062000 | N                              | 1.421000  | 3.595000  | 1.791000  |  |  |  |  |
| H                              | -0.283000 | -6.274000 | -1.875000 | C                              | 0.809000  | 4.760000  | 1.156000  |  |  |  |  |
| H                              | -2.154000 | -8.051000 | -2.746000 | C                              | 1.164000  | 4.773000  | -0.338000 |  |  |  |  |
| H                              | -1.194000 | -7.073000 | -3.857000 | O                              | 2.035000  | 5.477000  | -0.773000 |  |  |  |  |
| H                              | -0.680000 | -8.706000 | -3.440000 | C                              | 1.271000  | 6.033000  | 1.847000  |  |  |  |  |
| <b>Alanine tetrapeptide 39</b> |           |           |           |                                |           |           |           |  |  |  |  |
| C                              | -4.329000 | 1.671000  | -0.243000 | H                              | 2.283000  | 3.729000  | 2.270000  |  |  |  |  |
| C                              | -4.187000 | 0.302000  | 0.384000  | H                              | -0.262000 | 4.647000  | 1.262000  |  |  |  |  |
| O                              | -4.642000 | -0.692000 | -0.117000 | H                              | 0.793000  | 6.895000  | 1.399000  |  |  |  |  |
| H                              | -4.768000 | 2.373000  | 0.459000  | H                              | 1.013000  | 5.999000  | 2.900000  |  |  |  |  |
| H                              | -4.958000 | 1.590000  | -1.117000 | H                              | 2.341000  | 6.163000  | 1.737000  |  |  |  |  |
| H                              | -3.355000 | 2.051000  | -0.534000 | N                              | 0.432000  | 3.937000  | -1.098000 |  |  |  |  |
|                                |           |           |           | C                              | 0.723000  | 3.748000  | -2.503000 |  |  |  |  |
|                                |           |           |           | H                              | -0.163000 | 3.288000  | -0.633000 |  |  |  |  |
|                                |           |           |           | H                              | 0.874000  | 4.708000  | -2.976000 |  |  |  |  |

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|                         |            |           |           |   |           |           |          |
|-------------------------|------------|-----------|-----------|---|-----------|-----------|----------|
| N                       | -6.539000  | -1.577000 | 3.521000  | N | -3.501000 | 0.273000  | 1.549000 |
| C                       | -7.362000  | -2.633000 | 4.051000  | C | -3.291000 | -0.953000 | 2.280000 |
| C                       | -8.800000  | -2.127000 | 4.068000  | C | -3.049000 | -0.583000 | 3.735000 |
| O                       | -9.040000  | -0.940000 | 4.094000  | O | -2.644000 | 0.513000  | 4.052000 |
| C                       | -6.929000  | -3.048000 | 5.462000  | C | -2.101000 | -1.760000 | 1.740000 |
| H                       | -6.921000  | -0.660000 | 3.528000  | H | -3.155000 | 1.108000  | 1.965000 |
| H                       | -7.283000  | -3.488000 | 3.391000  | H | -4.189000 | -1.554000 | 2.205000 |
| H                       | -7.541000  | -3.860000 | 5.841000  | H | -1.959000 | -2.682000 | 2.293000 |
| H                       | -5.899000  | -3.379000 | 5.430000  | H | -2.287000 | -2.004000 | 0.702000 |
| H                       | -7.009000  | -2.207000 | 6.143000  | H | -1.188000 | -1.179000 | 1.810000 |
| N                       | -9.745000  | -3.079000 | 4.087000  | N | -3.287000 | -1.541000 | 4.647000 |
| C                       | -11.188000 | -2.891000 | 4.239000  | C | -2.917000 | -1.341000 | 6.035000 |
| C                       | -11.907000 | -2.395000 | 2.978000  | C | -1.397000 | -1.172000 | 6.145000 |
| O                       | -12.931000 | -2.931000 | 2.643000  | O | -0.660000 | -1.986000 | 5.662000 |
| C                       | -11.564000 | -2.040000 | 5.455000  | C | -3.359000 | -2.541000 | 6.868000 |
| H                       | -9.442000  | -4.016000 | 3.951000  | H | -3.460000 | -2.469000 | 4.337000 |
| H                       | -11.589000 | -3.883000 | 4.387000  | H | -3.419000 | -0.447000 | 6.385000 |
| H                       | -12.644000 | -2.029000 | 5.554000  | H | -3.114000 | -2.383000 | 7.912000 |
| H                       | -11.139000 | -2.474000 | 6.353000  | H | -4.430000 | -2.684000 | 6.785000 |
| H                       | -11.209000 | -1.024000 | 5.359000  | H | -2.848000 | -3.437000 | 6.534000 |
| N                       | -11.367000 | -1.354000 | 2.328000  | N | -0.979000 | -0.083000 | 6.822000 |
| C                       | -12.009000 | -0.792000 | 1.159000  | C | 0.425000  | 0.259000  | 7.014000 |
| H                       | -10.582000 | -0.891000 | 2.727000  | C | 1.180000  | 0.555000  | 5.709000 |
| H                       | -11.302000 | -0.146000 | 0.655000  | O | 2.380000  | 0.494000  | 5.688000 |
| H                       | -12.308000 | -1.582000 | 0.484000  | C | 1.170000  | -0.762000 | 7.871000 |
| H                       | -12.891000 | -0.216000 | 1.420000  | H | -1.657000 | 0.606000  | 7.051000 |
| <hr/>                   |            |           |           |   |           |           |          |
| Alanine tetrapeptide 41 |            |           |           |   |           |           |          |
| C                       | -2.764000  | 2.965000  | 1.675000  | H | 0.418000  | 1.206000  | 7.545000 |
| C                       | -2.700000  | 1.454000  | 1.617000  | H | 2.180000  | -0.418000 | 8.046000 |
| O                       | -3.196000  | 0.777000  | 2.483000  | H | 0.660000  | -0.876000 | 8.822000 |
| H                       | -1.934000  | 3.321000  | 2.278000  | H | 1.213000  | -1.721000 | 7.375000 |
| H                       | -3.685000  | 3.253000  | 2.161000  | N | 0.454000  | 0.981000  | 4.661000 |
| H                       | -2.703000  | 3.428000  | 0.697000  | C | 1.100000  | 1.266000  | 3.398000 |
| N                       | -2.036000  | 0.941000  | 0.560000  | H | -0.537000 | 0.902000  | 4.672000 |
| C                       | -1.709000  | -0.465000 | 0.325000  | H | 1.556000  | 0.378000  | 2.974000 |
| C                       | -2.891000  | -1.318000 | -0.146000 | H | 0.355000  | 1.645000  | 2.711000 |
| O                       | -2.772000  | -2.000000 | -1.132000 | H | 1.874000  | 2.012000  | 3.527000 |
| <hr/>                   |            |           |           |   |           |           |          |
| Alanine tetrapeptide 40 |            |           |           |   |           |           |          |
| C                       | -6.970000  | 2.270000  | 1.445000  | C | -6.331000 | 0.907000  | 1.315000 |
| C                       | -6.643000  | 0.127000  | 0.460000  | H | -7.773000 | 2.215000  | 2.174000 |
| O                       | -7.773000  | 2.215000  | 2.174000  | H | -7.389000 | 2.550000  | 0.490000 |
| H                       | -6.265000  | 3.025000  | 1.773000  | H | -5.412000 | 0.600000  | 2.272000 |
| N                       | -4.664000  | -0.642000 | 2.245000  | C | -5.403000 | -1.835000 | 2.852000 |
| C                       | -4.938000  | -2.940000 | 2.744000  | O | -3.322000 | -0.468000 | 2.954000 |
| C                       | -5.126000  | 1.310000  | 2.906000  | H | -4.497000 | -0.916000 | 1.212000 |
| H                       | -4.497000  | -0.916000 | 1.212000  | H | -2.775000 | -1.400000 | 2.931000 |
| H                       | -2.734000  | 0.299000  | 2.463000  | H | -3.466000 | -0.184000 | 3.994000 |
| H                       | -5.296000  | -1.966000 | -1.790000 |   |           |           |          |

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|                                |           |           |           |                                |           |           |           |
|--------------------------------|-----------|-----------|-----------|--------------------------------|-----------|-----------|-----------|
| N                              | 0.171000  | -0.669000 | 5.068000  | N                              | -5.014000 | -4.560000 | -0.465000 |
| C                              | -0.304000 | 0.549000  | 5.685000  | C                              | -4.511000 | -5.914000 | -0.494000 |
| H                              | -0.509000 | -1.325000 | 4.759000  | C                              | -4.672000 | -6.436000 | -1.918000 |
| H                              | -0.255000 | 1.391000  | 5.001000  | O                              | -5.458000 | -5.945000 | -2.686000 |
| H                              | -1.332000 | 0.397000  | 5.989000  | C                              | -5.257000 | -6.818000 | 0.495000  |
| H                              | 0.291000  | 0.792000  | 6.556000  | H                              | -5.509000 | -4.267000 | -1.276000 |
| <b>Alanine tetrapeptide_43</b> |           |           |           | H                              | -3.459000 | -5.895000 | -0.230000 |
| C                              | -0.787000 | 1.248000  | -0.230000 | H                              | -4.854000 | -7.826000 | 0.490000  |
| C                              | -1.500000 | 0.807000  | 1.024000  | H                              | -5.153000 | -6.411000 | 1.493000  |
| O                              | -2.180000 | 1.555000  | 1.673000  | H                              | -6.310000 | -6.864000 | 0.240000  |
| H                              | -0.720000 | 0.456000  | -0.966000 | N                              | -3.915000 | -7.505000 | -2.232000 |
| H                              | 0.219000  | 1.562000  | 0.032000  | C                              | -3.955000 | -8.100000 | -3.552000 |
| H                              | -1.313000 | 2.095000  | -0.645000 | H                              | -3.192000 | -7.778000 | -1.608000 |
| N                              | -1.329000 | -0.497000 | 1.379000  | H                              | -3.410000 | -7.507000 | -4.280000 |
| C                              | -1.722000 | -0.993000 | 2.694000  | H                              | -3.516000 | -9.089000 | -3.504000 |
| C                              | -3.236000 | -0.902000 | 2.927000  | H                              | -4.981000 | -8.185000 | -3.879000 |
| O                              | -3.664000 | -0.757000 | 4.042000  | <b>Alanine tetrapeptide_42</b> |           |           |           |
| C                              | -0.938000 | -0.362000 | 3.844000  | C                              | -2.009000 | 1.547000  | 0.030000  |
| H                              | -0.636000 | -1.017000 | 0.891000  | C                              | -2.796000 | 0.336000  | 0.466000  |
| H                              | -1.514000 | -2.059000 | 2.671000  | O                              | -3.007000 | -0.585000 | -0.284000 |
| H                              | -1.220000 | -0.818000 | 4.783000  | H                              | -2.306000 | 2.449000  | 0.551000  |
| H                              | 0.124000  | -0.514000 | 3.683000  | H                              | -2.135000 | 1.678000  | -1.035000 |
| H                              | -1.140000 | 0.698000  | 3.907000  | H                              | -0.960000 | 1.353000  | 0.235000  |
| N                              | -4.008000 | -1.096000 | 1.843000  | N                              | -3.218000 | 0.349000  | 1.754000  |
| C                              | -5.469000 | -1.147000 | 1.809000  | C                              | -3.842000 | -0.768000 | 2.462000  |
| C                              | -6.155000 | 0.220000  | 1.927000  | C                              | -2.799000 | -1.841000 | 2.780000  |
| O                              | -6.983000 | 0.522000  | 1.108000  | O                              | -2.423000 | -2.009000 | 3.918000  |
| C                              | -6.074000 | -2.151000 | 2.793000  | C                              | -5.103000 | -1.308000 | 1.787000  |
| H                              | -3.550000 | -1.095000 | 0.963000  | H                              | -2.865000 | 1.077000  | 2.331000  |
| H                              | -5.720000 | -1.465000 | 0.807000  | H                              | -4.118000 | -0.376000 | 3.431000  |
| H                              | -7.147000 | -2.195000 | 2.637000  | H                              | -5.548000 | -2.068000 | 2.421000  |
| H                              | -5.662000 | -3.137000 | 2.609000  | H                              | -5.818000 | -0.503000 | 1.665000  |
| H                              | -5.879000 | -1.882000 | 3.821000  | H                              | -4.899000 | -1.735000 | 0.817000  |
| N                              | -5.806000 | 0.996000  | 2.975000  | N                              | -2.309000 | -2.552000 | 1.749000  |
| C                              | -6.524000 | 2.214000  | 3.305000  | C                              | -1.103000 | -3.326000 | 1.942000  |
| C                              | -5.615000 | 3.430000  | 3.495000  | C                              | 0.028000  | -2.393000 | 2.392000  |
| O                              | -6.064000 | 4.430000  | 3.997000  | O                              | 0.209000  | -1.338000 | 1.845000  |
| C                              | -7.422000 | 2.019000  | 4.529000  | C                              | -0.712000 | -4.014000 | 0.636000  |
| H                              | -5.202000 | 0.600000  | 3.665000  | H                              | -2.500000 | -2.210000 | 0.829000  |
| H                              | -7.141000 | 2.445000  | 2.448000  | H                              | -1.292000 | -4.070000 | 2.707000  |
| H                              | -7.947000 | 2.936000  | 4.755000  | H                              | 0.184000  | -4.609000 | 0.775000  |
| H                              | -8.142000 | 1.231000  | 4.335000  | H                              | -1.511000 | -4.667000 | 0.304000  |
| H                              | -6.836000 | 1.740000  | 5.400000  | H                              | -0.516000 | -3.276000 | -0.133000 |
| N                              | -4.355000 | 3.350000  | 3.049000  | N                              | 0.787000  | -2.842000 | 3.413000  |
| C                              | -3.474000 | 4.494000  | 3.136000  | C                              | 1.882000  | -2.081000 | 4.000000  |
| H                              | -4.023000 | 2.528000  | 2.602000  | C                              | 1.446000  | -0.761000 | 4.654000  |
| H                              | -3.356000 | 4.814000  | 4.164000  | O                              | 2.262000  | 0.098000  | 4.861000  |
| H                              | -2.511000 | 4.206000  | 2.737000  | C                              | 3.043000  | -1.867000 | 3.030000  |
| H                              | -3.862000 | 5.332000  | 2.568000  | H                              | 0.483000  | -3.658000 | 3.890000  |
| <b>Alanine tetrapeptide_44</b> |           |           |           | H                              | 2.241000  | -2.687000 | 4.827000  |
| C                              | -1.251000 | -0.338000 | -1.755000 | H                              | 3.853000  | -1.366000 | 3.540000  |
| C                              | -0.578000 | -0.934000 | -0.543000 | H                              | 3.389000  | -2.827000 | 2.663000  |
|                                |           |           |           | H                              | 2.734000  | -1.260000 | 2.191000  |

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|                         |           |           |           |                         |           |           |           |  |  |  |  |
|-------------------------|-----------|-----------|-----------|-------------------------|-----------|-----------|-----------|--|--|--|--|
| H                       | -0.480000 | -1.554000 | 3.098000  | O                       | 0.020000  | -1.975000 | -0.593000 |  |  |  |  |
| H                       | -2.933000 | -1.591000 | 3.401000  | H                       | -0.616000 | -0.494000 | -2.616000 |  |  |  |  |
| H                       | -2.358000 | 0.044000  | 3.089000  | H                       | -1.463000 | 0.719000  | -1.646000 |  |  |  |  |
| H                       | -3.159000 | -0.864000 | 1.811000  | H                       | -2.183000 | -0.867000 | -1.924000 |  |  |  |  |
| N                       | -1.781000 | -3.085000 | 0.499000  | N                       | -0.675000 | -0.224000 | 0.611000  |  |  |  |  |
| C                       | -2.059000 | -4.387000 | -0.102000 | C                       | -0.287000 | -0.798000 | 1.897000  |  |  |  |  |
| C                       | -0.750000 | -4.942000 | -0.682000 | C                       | 1.196000  | -1.187000 | 1.932000  |  |  |  |  |
| O                       | -0.496000 | -4.874000 | -1.854000 | O                       | 1.559000  | -2.129000 | 2.590000  |  |  |  |  |
| C                       | -3.130000 | -4.251000 | -1.171000 | C                       | -1.181000 | -1.953000 | 2.336000  |  |  |  |  |
| H                       | -2.015000 | -2.272000 | -0.026000 | H                       | -1.305000 | 0.545000  | 0.632000  |  |  |  |  |
| H                       | -2.405000 | -5.039000 | 0.691000  | H                       | -0.379000 | 0.011000  | 2.616000  |  |  |  |  |
| H                       | -3.351000 | -5.220000 | -1.602000 | H                       | -0.892000 | -2.294000 | 3.321000  |  |  |  |  |
| H                       | -4.039000 | -3.847000 | -0.738000 | H                       | -2.214000 | -1.619000 | 2.367000  |  |  |  |  |
| H                       | -2.792000 | -3.608000 | -1.974000 | H                       | -1.098000 | -2.785000 | 1.650000  |  |  |  |  |
| N                       | 0.078000  | -5.449000 | 0.249000  | N                       | 2.031000  | -0.365000 | 1.274000  |  |  |  |  |
| C                       | 1.422000  | -5.930000 | -0.036000 | C                       | 3.488000  | -0.471000 | 1.206000  |  |  |  |  |
| C                       | 2.056000  | -6.532000 | 1.216000  | C                       | 3.999000  | -1.590000 | 0.290000  |  |  |  |  |
| O                       | 2.811000  | -7.460000 | 1.120000  | O                       | 4.784000  | -1.323000 | -0.580000 |  |  |  |  |
| C                       | 2.343000  | -4.826000 | -0.571000 | C                       | 4.161000  | -0.525000 | 2.580000  |  |  |  |  |
| H                       | -0.268000 | -5.497000 | 1.179000  | H                       | 1.613000  | 0.309000  | 0.677000  |  |  |  |  |
| H                       | 1.375000  | -6.732000 | -0.759000 | H                       | 3.814000  | 0.431000  | 0.709000  |  |  |  |  |
| H                       | 3.333000  | -5.232000 | -0.742000 | H                       | 5.237000  | -0.504000 | 2.446000  |  |  |  |  |
| H                       | 1.955000  | -4.440000 | -1.503000 | H                       | 3.871000  | 0.342000  | 3.163000  |  |  |  |  |
| H                       | 2.422000  | -4.013000 | 0.145000  | H                       | 3.891000  | -1.415000 | 3.128000  |  |  |  |  |
| N                       | 1.765000  | -5.946000 | 2.397000  | N                       | 3.571000  | -2.842000 | 0.545000  |  |  |  |  |
| C                       | 2.392000  | -6.397000 | 3.623000  | C                       | 4.121000  | -3.991000 | -0.149000 |  |  |  |  |
| H                       | 1.236000  | -5.105000 | 2.427000  | C                       | 3.453000  | -4.322000 | -1.484000 |  |  |  |  |
| H                       | 3.432000  | -6.093000 | 3.679000  | O                       | 3.999000  | -5.091000 | -2.234000 |  |  |  |  |
| H                       | 1.853000  | -5.975000 | 4.461000  | C                       | 4.060000  | -5.223000 | 0.754000  |  |  |  |  |
| H                       | 2.350000  | -7.475000 | 3.679000  | H                       | 2.962000  | -2.987000 | 1.322000  |  |  |  |  |
| <hr/>                   |           |           |           |                         |           |           |           |  |  |  |  |
| Alanine tetrapeptide 46 |           |           |           |                         |           |           |           |  |  |  |  |
| C                       | -4.587000 | 2.874000  | 2.577000  | H                       | 5.150000  | -3.775000 | -0.399000 |  |  |  |  |
| C                       | -4.927000 | 1.403000  | 2.685000  | H                       | 4.473000  | -6.076000 | 0.234000  |  |  |  |  |
| O                       | -6.035000 | 1.013000  | 2.920000  | H                       | 4.626000  | -5.052000 | 1.663000  |  |  |  |  |
| H                       | -5.504000 | 3.440000  | 2.524000  | H                       | 3.033000  | -5.453000 | 1.028000  |  |  |  |  |
| H                       | -3.979000 | 3.073000  | 1.701000  | N                       | 2.254000  | -3.781000 | -1.734000 |  |  |  |  |
| H                       | -4.029000 | 3.186000  | 3.455000  | C                       | 1.549000  | -4.078000 | -2.960000 |  |  |  |  |
| N                       | -3.876000 | 0.556000  | 2.494000  | H                       | 1.840000  | -3.148000 | -1.090000 |  |  |  |  |
| C                       | -3.994000 | -0.871000 | 2.777000  | H                       | 0.578000  | -3.606000 | -2.913000 |  |  |  |  |
| C                       | -2.606000 | -1.491000 | 2.884000  | H                       | 2.088000  | -3.705000 | -3.825000 |  |  |  |  |
| O                       | -2.336000 | -2.281000 | 3.747000  | H                       | 1.421000  | -5.147000 | -3.082000 |  |  |  |  |
| C                       | -4.815000 | -1.609000 | 1.714000  | <hr/>                   |           |           |           |  |  |  |  |
| H                       | -2.967000 | 0.957000  | 2.531000  | Alanine tetrapeptide 45 |           |           |           |  |  |  |  |
| H                       | -4.457000 | -1.017000 | 3.744000  | C                       | 0.850000  | 1.142000  | 0.358000  |  |  |  |  |
| H                       | -4.856000 | -2.667000 | 1.950000  | C                       | 0.013000  | 0.539000  | 1.463000  |  |  |  |  |
| H                       | -5.821000 | -1.216000 | 1.695000  | O                       | -0.190000 | 1.100000  | 2.500000  |  |  |  |  |
| H                       | -4.374000 | -1.488000 | 0.729000  | H                       | 0.354000  | 1.051000  | -0.603000 |  |  |  |  |
| N                       | -1.711000 | -1.101000 | 1.946000  | H                       | 1.804000  | 0.627000  | 0.296000  |  |  |  |  |
| C                       | -0.359000 | -1.610000 | 1.920000  | H                       | 1.027000  | 2.183000  | 0.583000  |  |  |  |  |
| C                       | 0.499000  | -0.540000 | 1.255000  | N                       | -0.499000 | -0.699000 | 1.183000  |  |  |  |  |
| O                       | 0.050000  | 0.110000  | 0.337000  | C                       | -1.127000 | -1.498000 | 2.232000  |  |  |  |  |
| C                       | -0.236000 | -2.932000 | 1.153000  | C                       | -1.300000 | -2.932000 | 1.749000  |  |  |  |  |
| H                       | -1.999000 | -0.563000 | 1.160000  | O                       | -1.041000 | -3.865000 | 2.470000  |  |  |  |  |
|                         |           |           |           | C                       | -2.487000 | -0.937000 | 2.659000  |  |  |  |  |
|                         |           |           |           | H                       | -0.046000 | -1.195000 | 0.447000  |  |  |  |  |

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|                                |           |           |           |                                |           |           |           |
|--------------------------------|-----------|-----------|-----------|--------------------------------|-----------|-----------|-----------|
| H                              | 2.290000  | -5.009000 | -0.010000 | H                              | -0.050000 | -1.763000 | 2.945000  |
| H                              | 2.519000  | -7.452000 | 0.398000  | H                              | 0.790000  | -3.289000 | 1.157000  |
| H                              | 3.346000  | -6.511000 | 1.644000  | H                              | -0.862000 | -3.678000 | 1.625000  |
| H                              | 1.792000  | -7.268000 | 1.984000  | H                              | -0.552000 | -2.802000 | 0.124000  |
| N                              | -0.768000 | -5.371000 | 0.409000  | N                              | 1.743000  | -0.403000 | 1.734000  |
| C                              | -1.999000 | -5.648000 | -0.299000 | C                              | 2.791000  | 0.484000  | 1.221000  |
| H                              | -0.777000 | -4.652000 | 1.096000  | C                              | 2.571000  | 1.960000  | 1.580000  |
| H                              | -2.810000 | -5.163000 | 0.228000  | O                              | 3.414000  | 2.550000  | 2.203000  |
| H                              | -1.963000 | -5.277000 | -1.317000 | C                              | 3.073000  | 0.289000  | -0.271000 |
| H                              | -2.185000 | -6.714000 | -0.335000 | H                              | 1.973000  | -0.920000 | 2.551000  |
| <b>Alanine tetrapeptide 48</b> |           |           |           | H                              | 3.681000  | 0.219000  | 1.773000  |
| C                              | -0.622000 | -0.870000 | -1.719000 | H                              | 3.910000  | 0.917000  | -0.557000 |
| C                              | -0.698000 | -1.350000 | -0.286000 | H                              | 3.341000  | -0.745000 | -0.462000 |
| O                              | -0.464000 | -2.481000 | 0.027000  | H                              | 2.219000  | 0.543000  | -0.882000 |
| H                              | -0.116000 | -1.619000 | -2.310000 | N                              | 1.442000  | 2.539000  | 1.142000  |
| H                              | -0.096000 | 0.075000  | -1.791000 | C                              | 1.165000  | 3.932000  | 1.421000  |
| H                              | -1.625000 | -0.732000 | -2.112000 | H                              | 0.784000  | 1.991000  | 0.634000  |
| N                              | -1.051000 | -0.388000 | 0.622000  | H                              | 1.094000  | 4.112000  | 2.488000  |
| C                              | -1.406000 | -0.739000 | 1.995000  | H                              | 1.945000  | 4.570000  | 1.024000  |
| C                              | -2.027000 | 0.463000  | 2.696000  | H                              | 0.224000  | 4.195000  | 0.956000  |
| O                              | -2.948000 | 0.315000  | 3.459000  | <b>Alanine tetrapeptide 47</b> |           |           |           |
| C                              | -0.199000 | -1.221000 | 2.810000  | C                              | -2.505000 | 2.620000  | 3.497000  |
| H                              | -1.508000 | 0.409000  | 0.238000  | C                              | -2.677000 | 1.536000  | 2.457000  |
| H                              | -2.167000 | -1.509000 | 2.004000  | O                              | -3.562000 | 1.551000  | 1.650000  |
| H                              | -0.505000 | -1.413000 | 3.833000  | H                              | -1.465000 | 2.907000  | 3.603000  |
| H                              | 0.192000  | -2.131000 | 2.383000  | H                              | -2.858000 | 2.259000  | 4.459000  |
| H                              | 0.587000  | -0.472000 | 2.818000  | H                              | -3.096000 | 3.477000  | 3.209000  |
| N                              | -1.459000 | 1.662000  | 2.438000  | N                              | -1.747000 | 0.538000  | 2.510000  |
| C                              | -1.889000 | 2.963000  | 2.948000  | C                              | -1.914000 | -0.679000 | 1.724000  |
| C                              | -1.526000 | 3.223000  | 4.415000  | C                              | -0.977000 | -1.763000 | 2.228000  |
| O                              | -0.912000 | 4.227000  | 4.695000  | O                              | -1.319000 | -2.918000 | 2.250000  |
| C                              | -3.368000 | 3.258000  | 2.683000  | C                              | -1.647000 | -0.453000 | 0.230000  |
| H                              | -0.606000 | 1.652000  | 1.927000  | H                              | -1.225000 | 0.465000  | 3.354000  |
| H                              | -1.297000 | 3.689000  | 2.410000  | H                              | -2.917000 | -1.067000 | 1.848000  |
| H                              | -3.591000 | 4.269000  | 3.009000  | H                              | -1.764000 | -1.387000 | -0.308000 |
| H                              | -3.570000 | 3.190000  | 1.620000  | H                              | -2.353000 | 0.268000  | -0.157000 |
| H                              | -4.016000 | 2.569000  | 3.204000  | H                              | -0.640000 | -0.087000 | 0.065000  |
| N                              | -1.949000 | 2.339000  | 5.327000  | N                              | 0.258000  | -1.367000 | 2.626000  |
| C                              | -1.764000 | 2.542000  | 6.760000  | C                              | 1.292000  | -2.357000 | 2.898000  |
| C                              | -0.382000 | 2.033000  | 7.195000  | C                              | 1.474000  | -3.242000 | 1.654000  |
| O                              | -0.244000 | 1.001000  | 7.797000  | O                              | 1.628000  | -2.711000 | 0.587000  |
| C                              | -2.874000 | 1.840000  | 7.529000  | C                              | 1.064000  | -3.056000 | 4.236000  |
| H                              | -2.449000 | 1.532000  | 5.017000  | H                              | 0.573000  | -0.494000 | 2.265000  |
| H                              | -1.805000 | 3.609000  | 6.939000  | H                              | 2.221000  | -1.801000 | 2.962000  |
| H                              | -2.757000 | 2.007000  | 8.592000  | H                              | 1.896000  | -3.712000 | 4.473000  |
| H                              | -3.840000 | 2.225000  | 7.218000  | H                              | 1.001000  | -2.310000 | 5.019000  |
| H                              | -2.842000 | 0.771000  | 7.360000  | H                              | 0.145000  | -3.626000 | 4.239000  |
| N                              | 0.647000  | 2.829000  | 6.853000  | N                              | 1.490000  | -4.577000 | 1.827000  |
| C                              | 2.014000  | 2.439000  | 7.121000  | C                              | 1.674000  | -5.505000 | 0.726000  |
| H                              | 0.462000  | 3.610000  | 6.262000  | C                              | 0.390000  | -5.893000 | -0.015000 |
| H                              | 2.664000  | 3.271000  | 6.883000  | O                              | 0.468000  | -6.667000 | -0.935000 |
| H                              | 2.133000  | 2.187000  | 8.167000  | C                              | 2.381000  | -6.765000 | 1.220000  |
| H                              | 2.312000  | 1.578000  | 6.531000  | H                              | 1.240000  | -4.951000 | 2.712000  |

|       |           |           |           | Alanine tetrapeptide 49 |
|-------|-----------|-----------|-----------|-------------------------|
| C     | -0.419000 | 1.049000  | 3.659000  |                         |
| O     | -0.440000 | 1.876000  | 4.535000  |                         |
| C     | -1.257000 | -1.277000 | 4.026000  |                         |
| H     | -1.517000 | 0.754000  | 1.436000  |                         |
| H     | -2.421000 | 0.525000  | 3.984000  |                         |
| H     | -0.983000 | -1.170000 | 5.071000  |                         |
| H     | -2.119000 | -1.923000 | 3.955000  |                         |
| H     | -0.430000 | -1.737000 | 3.496000  |                         |
| N     | 0.638000  | 0.896000  | 2.832000  |                         |
| C     | 1.848000  | 1.704000  | 2.945000  |                         |
| C     | 1.628000  | 2.997000  | 2.152000  |                         |
| O     | 2.008000  | 3.120000  | 1.021000  |                         |
| C     | 3.051000  | 0.931000  | 2.426000  |                         |
| H     | 0.618000  | 0.176000  | 2.146000  |                         |
| H     | 1.977000  | 1.942000  | 3.993000  |                         |
| H     | 3.951000  | 1.526000  | 2.530000  |                         |
| H     | 3.175000  | 0.013000  | 2.990000  |                         |
| H     | 2.934000  | 0.700000  | 1.374000  |                         |
| N     | 0.948000  | 3.965000  | 2.814000  |                         |
| C     | 0.368000  | 5.087000  | 2.092000  |                         |
| C     | 1.359000  | 6.194000  | 1.734000  |                         |
| O     | 1.048000  | 7.008000  | 0.905000  |                         |
| C     | -0.777000 | 5.687000  | 2.908000  |                         |
| H     | 0.513000  | 3.695000  | 3.672000  |                         |
| H     | -0.008000 | 4.741000  | 1.137000  |                         |
| H     | -1.216000 | 6.512000  | 2.364000  |                         |
| H     | -1.542000 | 4.940000  | 3.094000  |                         |
| H     | -0.419000 | 6.056000  | 3.864000  |                         |
| N     | 2.510000  | 6.248000  | 2.428000  |                         |
| C     | 3.526000  | 7.228000  | 2.110000  |                         |
| H     | 2.743000  | 5.476000  | 3.004000  |                         |
| H     | 4.056000  | 6.978000  | 1.196000  |                         |
| H     | 3.066000  | 8.197000  | 1.983000  |                         |
| H     | 4.235000  | 7.276000  | 2.927000  |                         |
| <hr/> |           |           |           | Alanine tetrapeptide 51 |
| C     | -0.897000 | 0.697000  | -1.590000 |                         |
| C     | -0.898000 | -0.402000 | -0.551000 |                         |
| O     | -1.120000 | -1.550000 | -0.843000 |                         |
| H     | -1.020000 | 0.252000  | -2.565000 |                         |
| H     | 0.034000  | 1.255000  | -1.561000 |                         |
| H     | -1.711000 | 1.390000  | -1.404000 |                         |
| N     | -0.637000 | 0.004000  | 0.712000  |                         |
| C     | -0.621000 | -0.834000 | 1.912000  |                         |
| C     | 0.634000  | -1.712000 | 1.984000  |                         |
| O     | 1.467000  | -1.501000 | 2.825000  |                         |
| C     | -1.918000 | -1.616000 | 2.131000  |                         |
| H     | -0.393000 | 0.958000  | 0.843000  |                         |
| H     | -0.494000 | -0.147000 | 2.736000  |                         |
| H     | -1.855000 | -2.165000 | 3.064000  |                         |
| H     | -2.751000 | -0.924000 | 2.198000  |                         |
| H     | -2.115000 | -2.313000 | 1.330000  |                         |
| N     | 0.718000  | -2.731000 | 1.099000  |                         |
| C     | 1.941000  | -3.501000 | 0.922000  |                         |
| <hr/> |           |           |           | Alanine tetrapeptide 50 |
| C     | -3.395000 | -0.254000 | 0.118000  |                         |
| C     | -3.072000 | -0.513000 | 1.573000  |                         |
| O     | -3.794000 | -1.144000 | 2.289000  |                         |
| H     | -4.084000 | -1.012000 | -0.224000 |                         |
| H     | -2.506000 | -0.254000 | -0.502000 |                         |
| H     | -3.876000 | 0.716000  | 0.029000  |                         |
| N     | -1.900000 | 0.038000  | 2.012000  |                         |
| C     | -1.589000 | 0.099000  | 3.439000  |                         |

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|   |           |           |           |  |           |           |           |
|---|-----------|-----------|-----------|--|-----------|-----------|-----------|
| C | -2.951012 | -2.154705 | 0.419877  | C  | 2.355000  | -4.264000 | 2.184000  |
| H | -2.277632 | -2.338019 | 1.262200  | O  | 3.512000  | -4.510000 | 2.402000  |
| C | -3.505652 | -3.488284 | -0.092324 | C  | 3.100000  | -2.675000 | 0.367000  |
| H | -4.046393 | -4.011010 | 0.702950  | H  | 0.067000  | -2.723000 | 0.342000  |
| H | -4.191914 | -3.337081 | -0.931607 | H  | 1.691000  | -4.275000 | 0.202000  |
| H | -2.676564 | -4.118060 | -0.424820 | H  | 3.958000  | -3.309000 | 0.192000  |
| C | -2.059810 | -1.492764 | -0.651660 | H  | 2.799000  | -2.218000 | -0.570000 |
| O | -0.880034 | -1.836558 | -0.748113 | H  | 3.385000  | -1.901000 | 1.066000  |
| N | -2.636670 | -0.581860 | -1.472658 | N  | 1.355000  | -4.728000 | 2.955000  |
| H | -3.588570 | -0.268390 | -1.302305 | C  | 1.625000  | -5.425000 | 4.189000  |
| C | -1.847137 | 0.109991  | -2.489256 | C  | 0.370000  | -6.205000 | 4.563000  |
| H | -1.244472 | -0.635587 | -3.013914 | O  | -0.727000 | -5.830000 | 4.237000  |
| C | -2.764475 | 0.828833  | -3.484073 | C  | 2.002000  | -4.467000 | 5.327000  |
| H | -3.396446 | 0.108005  | -4.013596 | H  | 0.414000  | -4.453000 | 2.788000  |
| H | -3.412215 | 1.550244  | -2.974878 | H  | 2.447000  | -6.108000 | 4.014000  |
| H | -2.153080 | 1.361803  | -4.216954 | H  | 2.223000  | -5.011000 | 6.241000  |
| C | -0.811817 | 1.093184  | -1.898836 | H  | 2.877000  | -3.899000 | 5.040000  |
| O | 0.210648  | 1.351641  | -2.524662 | H  | 1.189000  | -3.777000 | 5.521000  |
| N | -1.129685 | 1.671593  | -0.705824 | N  | 0.568000  | -7.300000 | 5.319000  |
| H | -1.909271 | 1.297379  | -0.177112 | C  | -0.541000 | -8.101000 | 5.796000  |
| C | -0.157675 | 2.491071  | 0.014047  | H  | 1.495000  | -7.597000 | 5.509000  |
| H | 0.369141  | 3.099959  | -0.724821 | H  | -0.155000 | -8.867000 | 6.457000  |
| C | 0.943275  | 1.622085  | 0.659050  | H  | -1.246000 | -7.487000 | 6.341000  |
| O | 2.129282  | 1.950566  | 0.602628  | H  | -1.066000 | -8.575000 | 4.975000  |
| N | 0.538082  | 0.485079  | 1.283366  | <hr/>  |           |           |           |
| H | -0.448916 | 0.255138  | 1.334873  | Ac-(Ala) <sub>4</sub> -Val-(Ala) <sub>4</sub> -NHMe $\alpha$ R |           |           |           |
| C | 1.508558  | -0.420614 | 1.892380  | C  | -8.965363 | -2.950402 | 0.652913  |
| H | 2.098547  | 0.126764  | 2.634471  | H  | -9.887208 | -2.465621 | 0.987616  |
| C | 0.788930  | -1.597312 | 2.559699  | H  | -8.532751 | -3.519138 | 1.479717  |
| H | 0.095656  | -1.241229 | 3.330005  | H  | -9.213652 | -3.664581 | -0.140169 |
| H | 0.228930  | -2.176037 | 1.816845  | C  | -7.928952 | -1.978304 | 0.125410  |
| H | 1.524420  | -2.254502 | 3.031671  | O  | -6.756594 | -2.304273 | -0.055720 |
| C | 2.552443  | -0.938349 | 0.882486  | N  | -8.363045 | -0.703540 | -0.133588 |
| O | 3.701796  | -1.183988 | 1.252481  | H  | -9.358391 | -0.524053 | -0.094110 |
| N | 2.130753  | -1.113878 | -0.392019 | C  | -7.550479 | 0.224995  | -0.924757 |
| H | 1.142096  | -1.025476 | -0.606090 | H  | -7.245963 | -0.264658 | -1.856693 |
| C | 3.023323  | -1.618292 | -1.429449 | C  | -8.354047 | 1.489215  | -1.249926 |
| H | 3.442093  | -2.580535 | -1.114548 | H  | -9.241592 | 1.243096  | -1.843373 |
| C | 2.248161  | -1.791237 | -2.741006 | H  | -8.671666 | 2.003495  | -0.335918 |
| H | 1.434219  | -2.512681 | -2.610871 | H  | -7.733303 | 2.173787  | -1.832933 |
| H | 1.819492  | -0.836383 | -3.065100 | C  | -6.225800 | 0.600516  | -0.243636 |
| H | 2.926101  | -2.158083 | -3.516068 | O  | -5.270958 | 0.978382  | -0.922713 |
| C | 4.258656  | -0.725816 | -1.661692 | N  | -6.175951 | 0.518871  | 1.108094  |
| O | 5.275562  | -1.225739 | -2.152115 | H  | -6.982891 | 0.160366  | 1.600862  |
| N | 4.153592  | 0.584654  | -1.343300 | C  | -4.950895 | 0.807207  | 1.844393  |
| H | 3.318775  | 0.930107  | -0.877680 | H  | -4.620195 | 1.818956  | 1.589321  |
| C | 5.275480  | 1.502299  | -1.508944 | C  | -5.199507 | 0.717350  | 3.353545  |
| H | 5.736301  | 1.287225  | -2.478610 | H  | -5.955560 | 1.445928  | 3.664487  |
| C | 4.787981  | 2.954010  | -1.485475 | H  | -5.535198 | -0.286030 | 3.641399  |
| H | 4.112573  | 3.145050  | -2.326017 | H  | -4.271257 | 0.932927  | 3.887774  |
| H | 4.249888  | 3.171883  | -0.556835 | C  | -3.769224 | -0.095045 | 1.440384  |
| H | 5.651935  | 3.618283  | -1.560571 | O  | -2.617810 | 0.302298  | 1.661949  |
| C | 6.430365  | 1.299324  | -0.499273 | N  | -4.037755 | -1.289187 | 0.874218  |
|   |           |           | H         | -4.995618  | -1.555249 | 0.652734  |           |

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|   |           |           |           |   |            |           |           |
|---|-----------|-----------|-----------|---|------------|-----------|-----------|
| O | -9.402037 | -0.134355 | -1.587369 | O   | 7.477713   | 1.919777  | -0.664889 |
| N | -8.161424 | 0.103356  | 0.303489  | N   | 6.218117   | 0.415480  | 0.510638  |
| H | -8.054951 | -0.051055 | 1.301942  | H   | 5.312697   | -0.035665 | 0.612038  |
| C | -6.961040 | 0.583994  | -0.359771 | C   | 7.273311   | -0.001876 | 1.421836  |
| H | -6.785374 | -0.030653 | -1.251118 | H   | 8.093042   | 0.710314  | 1.282739  |
| C | -7.088481 | 2.056529  | -0.793379 | C   | 6.796590   | 0.032953  | 2.878220  |
| H | -7.939718 | 2.156644  | -1.471258 | H   | 6.565708   | 1.060592  | 3.177268  |
| H | -7.247977 | 2.699691  | 0.078360  | H   | 5.892240   | -0.574047 | 3.001211  |
| H | -6.186634 | 2.394186  | -1.315355 | H   | 7.578686   | -0.369800 | 3.525560  |
| C | -5.808076 | 0.386391  | 0.641674  | C   | 7.861001   | -1.393967 | 1.083727  |
| O | -6.029130 | 0.158586  | 1.833195  | O   | 8.654995   | -1.933296 | 1.854429  |
| N | -4.566889 | 0.500564  | 0.124794  | N   | 7.470763   | -1.953419 | -0.086031 |
| H | -4.404897 | 0.727527  | -0.852098 | H   | 6.821174   | -1.473781 | -0.699770 |
| C | -3.360706 | 0.449481  | 0.934113  | C   | 7.989832   | -3.239369 | -0.508872 |
| H | -3.524616 | 1.037755  | 1.844922  | H   | 7.978931   | -3.942052 | 0.329754  |
| C | -2.991572 | -0.992193 | 1.334035  | H   | 7.359527   | -3.618798 | -1.316725 |
| H | -3.814093 | -1.425023 | 1.908676  | H   | 9.024540   | -3.163939 | -0.868623 |
| H | -2.819507 | -1.602647 | 0.441374  | C   | -0.864377  | 3.411632  | 1.041127  |
| H | -2.086036 | -1.014554 | 1.950025  | H   | -1.427191  | 2.763886  | 1.729333  |
| C | -2.248644 | 1.097379  | 0.089192  | C   | -1.857869  | 4.349492  | 0.337538  |
| O | -2.393552 | 1.277502  | -1.120118 | H   | -2.608106  | 3.797719  | -0.237910 |
| N | -1.128873 | 1.434855  | 0.774401  | H   | -2.380667  | 4.972633  | 1.072672  |
| H | -1.000957 | 1.093474  | 1.723272  | H   | -1.333865  | 5.020497  | -0.354604 |
| C | 0.125595  | 1.778800  | 0.118755  | C   | 0.152840   | 4.219754  | 1.860972  |
| H | 0.054308  | 1.451050  | -0.924119 | H   | 0.829617   | 3.577570  | 2.431511  |
| C | 1.226195  | 0.981490  | 0.845930  | H   | 0.769945   | 4.849877  | 1.209857  |
| O | 1.036247  | 0.516805  | 1.973206  | H   | -0.369877  | 4.874513  | 2.567340  |
| N | 2.393237  | 0.858048  | 0.180048  | <u>Ac-(Ala)<sub>4</sub>-Val-(Ala)<sub>4</sub>-NHMe C5</u> |            |           |           |
| H | 2.545497  | 1.281509  | -0.731072 | C   | -17.447492 | -2.170774 | -0.035612 |
| C | 3.572649  | 0.227765  | 0.749992  | H   | -17.247946 | -2.144449 | 1.040097  |
| H | 3.692244  | 0.577176  | 1.782847  | H   | -17.678692 | -3.199057 | -0.330947 |
| C | 3.461722  | -1.308677 | 0.757464  | H   | -18.333327 | -1.564259 | -0.248572 |
| H | 2.584656  | -1.601081 | 1.339909  | C   | -16.289574 | -1.665228 | -0.885274 |
| H | 3.355855  | -1.689140 | -0.263844 | O   | -16.351073 | -1.628012 | -2.111672 |
| H | 4.347598  | -1.767150 | 1.209907  | N   | -15.191563 | -1.255467 | -0.193475 |
| C | 4.765120  | 0.705086  | -0.100164 | H   | -15.114899 | -1.355947 | 0.812362  |
| O | 4.591605  | 1.266156  | -1.184366 | C   | -13.978683 | -0.813572 | -0.854064 |
| N | 5.984850  | 0.447563  | 0.416372  | H   | -13.786498 | -1.476254 | -1.707270 |
| H | 6.108424  | -0.074072 | 1.279703  | C   | -14.096945 | 0.631218  | -1.377951 |
| C | 7.220056  | 0.704187  | -0.305506 | H   | -14.936702 | 0.684183  | -2.075102 |
| H | 7.079813  | 0.409206  | -1.352663 | H   | -14.274482 | 1.325050  | -0.549382 |
| C | 7.619059  | 2.190998  | -0.261074 | H   | -13.186615 | 0.940685  | -1.903440 |
| H | 6.815853  | 2.789029  | -0.698667 | C   | -12.841136 | -0.947272 | 0.172326  |
| H | 7.782239  | 2.513916  | 0.772402  | O   | -13.070947 | -1.092315 | 1.375032  |
| H | 8.536397  | 2.372159  | -0.831599 | N   | -11.590781 | -0.874545 | -0.336151 |
| C | 8.289191  | -0.194054 | 0.345006  | H   | -11.417078 | -0.703326 | -1.322012 |
| O | 8.083484  | -0.749585 | 1.426389  | C   | -10.399674 | -0.862236 | 0.494883  |
| N | 9.446049  | -0.308571 | -0.340092 | H   | -10.586105 | -0.218777 | 1.363462  |
| H | 9.619068  | 0.202868  | -1.200693 | C   | -10.029326 | -2.271075 | 0.996357  |
| C | 10.600370 | -1.028531 | 0.171738  | H   | -10.865853 | -2.675145 | 1.571724  |
| H | 10.721195 | -0.784393 | 1.234334  | H   | -9.823216  | -2.935676 | 0.150844  |
| C | 10.441503 | -2.554084 | 0.030287  | H   | -9.144320  | -2.242404 | 1.641263  |
| H | 9.547354  | -2.871725 | 0.572122  | C   | -9.276907  | -0.256312 | -0.366891 |

|   |           |           |           |  |            |           |           |
|---|-----------|-----------|-----------|--|------------|-----------|-----------|
| H | -8.927112 | -2.543139 | -1.738523 | H  | 10.338693  | -2.832597 | -1.023663 |
| H | -7.920895 | -3.415914 | -0.584620 | H  | 11.305315  | -3.082538 | 0.447605  |
| C | -7.258958 | -0.731017 | -0.427067 | C  | 11.815000  | -0.508025 | -0.618489 |
| O | -6.666996 | -1.101426 | -1.446197 | O  | 11.672346  | 0.170521  | -1.637991 |
| N | -6.852735 | 0.313537  | 0.331837  | N  | 13.021866  | -0.862475 | -0.128096 |
| H | -7.433762 | 0.564653  | 1.133239  | H  | 13.122934  | -1.465899 | 0.682871  |
| C | -5.789062 | 1.231834  | -0.089400 | C  | 14.268879  | -0.555795 | -0.807273 |
| H | -5.847979 | 1.308030  | -1.182583 | H  | 14.122814  | -0.710527 | -1.883559 |
| C | -5.996993 | 2.602234  | 0.547729  | C  | 14.710996  | 0.900960  | -0.571350 |
| H | -6.986309 | 2.991072  | 0.287286  | H  | 13.928371  | 1.574512  | -0.929232 |
| H | -5.907798 | 2.543820  | 1.636298  | H  | 14.878701  | 1.081521  | 0.495288  |
| H | -5.238508 | 3.304765  | 0.193802  | H  | 15.636907  | 1.128132  | -1.111344 |
| C | -4.392388 | 0.658182  | 0.252799  | C  | 15.308426  | -1.556786 | -0.268906 |
| O | -3.647462 | 1.193253  | 1.082338  | O  | 15.098317  | -2.196241 | 0.759719  |
| N | -4.057653 | -0.454932 | -0.438585 | N  | 16.451883  | -1.647829 | -0.993788 |
| H | -4.762689 | -0.842737 | -1.068270 | H  | 16.527970  | -1.105802 | -1.843074 |
| C | -2.873336 | -1.258150 | -0.119849 | C  | 17.563805  | -2.506620 | -0.616186 |
| H | -2.728381 | -1.195093 | 0.966336  | H  | 17.750867  | -3.266100 | -1.383513 |
| C | -3.098313 | -2.708350 | -0.537531 | H  | 18.477206  | -1.920936 | -0.464108 |
| H | -3.990524 | -3.107629 | -0.045193 | H  | 17.294331  | -3.000998 | 0.317465  |
| H | -3.219688 | -2.787449 | -1.621657 | C  | 0.429929   | 3.306553  | 0.131624  |
| H | -2.237258 | -3.320946 | -0.259376 | H  | 1.416534   | 3.421000  | -0.340930 |
| C | -1.598502 | -0.678642 | -0.780795 | C  | -0.590785  | 4.079415  | -0.714406 |
| O | -0.984189 | -1.291427 | -1.660617 | H  | -0.638396  | 3.698288  | -1.739700 |
| N | -1.207713 | 0.525068  | -0.298941 | H  | -1.596011  | 4.001516  | -0.286848 |
| H | -1.793832 | 0.956902  | 0.416183  | H  | -0.323002  | 5.141590  | -0.753515 |
| C | -0.074887 | 1.263139  | -0.869061 | C  | 0.514603   | 3.870972  | 1.556908  |
| H | -0.054853 | 1.024181  | -1.940059 | H  | -0.451949  | 3.785216  | 2.066845  |
| C | 1.231580  | 0.719039  | -0.238073 | H  | 1.261702   | 3.350413  | 2.165480  |
| O | 1.855910  | 1.326997  | 0.638488  | H  | 0.782080   | 4.932972  | 1.528945  |
| N | 1.614212  | -0.489125 | -0.718415 | <u>Ac-(Ala)<sub>4</sub>-Val-(Ala)<sub>4</sub>-NHMe C7<sub>eq</sub></u> |            |           |           |
| H | 0.955200  | -0.961955 | -1.338396 | C  | -14.128777 | -1.678627 | 0.474481  |
| C | 2.660763  | -1.294432 | -0.077172 | H  | -14.469794 | -1.531361 | 1.503505  |
| H | 2.618426  | -1.080193 | 0.998869  | H  | -13.891368 | -2.735379 | 0.321852  |
| C | 2.408467  | -2.777324 | -0.331591 | H  | -14.946178 | -1.426719 | -0.208749 |
| H | 1.413715  | -3.057699 | 0.028630  | C  | -12.916434 | -0.843707 | 0.107823  |
| H | 2.481552  | -3.007197 | -1.398412 | O  | -12.370836 | -0.942982 | -0.994362 |
| H | 3.156601  | -3.382978 | 0.185647  | N  | -12.472584 | 0.026232  | 1.056308  |
| C | 4.067455  | -0.874433 | -0.566762 | H  | -12.916438 | 0.041662  | 1.964244  |
| O | 4.786651  | -1.634757 | -1.223895 | C  | -11.393815 | 0.990001  | 0.810801  |
| N | 4.442926  | 0.371377  | -0.195662 | H  | -11.491939 | 1.296639  | -0.236996 |
| H | 3.758976  | 0.932714  | 0.314596  | C  | -11.543496 | 2.195561  | 1.732660  |
| C | 5.665184  | 1.011346  | -0.692758 | H  | -12.522655 | 2.663185  | 1.589249  |
| H | 5.818440  | 0.649896  | -1.717507 | H  | -11.427492 | 1.903564  | 2.781119  |
| C | 5.506595  | 2.528426  | -0.686205 | H  | -10.767643 | 2.934327  | 1.517593  |
| H | 4.648615  | 2.821313  | -1.299668 | C  | -10.004816 | 0.325352  | 0.973952  |
| H | 5.366093  | 2.901553  | 0.332417  | O  | -9.244739  | 0.620076  | 1.902588  |
| H | 6.405489  | 3.003866  | -1.086343 | N  | -9.702217  | -0.581691 | 0.017503  |
| C | 6.899776  | 0.574496  | 0.133885  | H  | -10.429256 | -0.795204 | -0.667558 |
| O | 7.532683  | 1.368629  | 0.837234  | C  | -8.524533  | -1.453728 | 0.095272  |
| N | 7.227630  | -0.732083 | 0.003842  | H  | -8.356356  | -1.669877 | 1.158161  |
| H | 6.613205  | -1.313480 | -0.568234 | C  | -8.779614  | -2.746208 | -0.673971 |
| C | 8.248313  | -1.377897 | 0.835497  | H  | -9.665789  | -3.251855 | -0.278217 |

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|   |           |           |           |   |           |           |           |
|---|-----------|-----------|-----------|---|-----------|-----------|-----------|
| N | -6.204504 | 0.718846  | 0.802551  | H   | 8.218951  | -0.883266 | 1.814627  |
| H | -7.017951 | 0.537016  | 1.375089  | C   | 7.939373  | -2.864247 | 0.984916  |
| C | -4.982158 | 1.214334  | 1.424547  | H   | 6.942605  | -3.001368 | 1.415977  |
| H | -4.642123 | 2.095848  | 0.871864  | H   | 7.985315  | -3.370502 | 0.016288  |
| C | -5.241903 | 1.598028  | 2.884826  | H   | 8.676104  | -3.339730 | 1.637047  |
| H | -5.995643 | 2.389870  | 2.947892  | C   | 9.667922  | -1.156727 | 0.256610  |
| H | -5.585463 | 0.734803  | 3.467141  | O   | 10.349799 | -2.092098 | -0.176644 |
| H | -4.316028 | 1.965411  | 3.333456  | N   | 10.090127 | 0.127220  | 0.285216  |
| C | -3.804268 | 0.225429  | 1.329741  | H   | 9.437741  | 0.827330  | 0.639786  |
| O | -2.651863 | 0.665545  | 1.433748  | C   | 11.338440 | 0.571144  | -0.346450 |
| N | -4.077580 | -1.082303 | 1.146769  | H   | 11.486500 | -0.063963 | -1.228388 |
| H | -5.036334 | -1.398591 | 1.012214  | C   | 11.223789 | 2.034584  | -0.759406 |
| C | -2.994492 | -2.049296 | 0.979278  | H   | 10.369746 | 2.175603  | -1.429808 |
| H | -2.331357 | -1.983663 | 1.846804  | H   | 11.104759 | 2.676310  | 0.118388  |
| C | -3.557400 | -3.470343 | 0.870326  | H   | 12.134675 | 2.352910  | -1.272637 |
| H | -4.111063 | -3.735689 | 1.776497  | C   | 12.550998 | 0.352874  | 0.598546  |
| H | -4.234249 | -3.564122 | 0.015164  | O   | 13.171598 | 1.290000  | 1.090396  |
| H | -2.731777 | -4.175473 | 0.744929  | N   | 12.851459 | -0.958681 | 0.798499  |
| C | -2.085948 | -1.734030 | -0.227242 | H   | 12.210383 | -1.645089 | 0.405097  |
| O | -0.906096 | -2.090385 | -0.199388 | C   | 13.896665 | -1.385341 | 1.708697  |
| N | -2.646789 | -1.109351 | -1.291211 | H   | 13.482089 | -1.850424 | 2.612976  |
| H | -3.599634 | -0.758390 | -1.236945 | H   | 14.564138 | -2.105919 | 1.222180  |
| C | -1.839142 | -0.751223 | -2.455269 | H   | 14.468912 | -0.502432 | 1.997836  |
| H | -1.237831 | -1.621175 | -2.731083 | C   | -0.219371 | 2.787091  | -0.692107 |
| C | -2.739038 | -0.350633 | -3.629126 | H   | -0.109481 | 3.006002  | 0.377819  |
| H | -3.373017 | -1.191201 | -3.930557 | C   | 0.907485  | 3.516787  | -1.441571 |
| H | -3.384520 | 0.493163  | -3.363502 | H   | 1.893201  | 3.211702  | -1.081350 |
| H | -2.115310 | -0.061584 | -4.479145 | H   | 0.852256  | 3.322896  | -2.520932 |
| C | -0.801724 | 0.355836  | -2.163533 | H   | 0.818942  | 4.598843  | -1.295639 |
| O | 0.240548  | 0.403305  | -2.808275 | C   | -1.590021 | 3.292627  | -1.169876 |
| N | -1.139598 | 1.275266  | -1.215596 | H   | -1.765101 | 3.026920  | -2.220462 |
| H | -1.934997 | 1.088150  | -0.615957 | H   | -2.414161 | 2.889915  | -0.574237 |
| C | -0.168088 | 2.266862  | -0.752377 | H   | -1.629830 | 4.385051  | -1.093213 |
| H | 0.363604  | 2.638343  | -1.631346 | H   | -1.765101 | 3.026920  | -2.220462 |
| C | -0.919766 | 3.426853  | -0.066091 | H   | -2.414161 | 2.889915  | -0.574237 |
| H | -1.708973 | 3.720237  | -0.771323 | H   | -1.629830 | 4.385051  | -1.093213 |
| H | -1.430481 | 3.051803  | 0.832269  | <u>Ac-(Ala)<sub>4</sub>-Leu-(Ala)<sub>4</sub>-NHMe αR</u> |           |           |           |
| C | -0.087595 | 4.680698  | 0.288056  | C   | -9.028654 | -2.694123 | 1.430321  |
| H | 0.604199  | 4.871769  | -0.545029 | H   | -9.937783 | -2.111773 | 1.607327  |
| C | -1.021903 | 5.896061  | 0.409163  | H   | -8.600684 | -3.000909 | 2.387773  |
| H | -0.455954 | 6.804271  | 0.645603  | H   | -9.298635 | -3.605794 | 0.885450  |
| H | -1.572986 | 6.075671  | -0.521898 | C   | -7.978007 | -1.944208 | 0.635875  |
| H | -1.758270 | 5.747986  | 1.210774  | O   | -6.808334 | -2.320373 | 0.575390  |
| C | 0.745908  | 4.524627  | 1.570580  | N   | -8.397448 | -0.810325 | -0.011906 |
| H | 1.263588  | 5.462572  | 1.803659  | H   | -9.391014 | -0.618748 | -0.037849 |
| H | 0.101899  | 4.281812  | 2.426575  | C   | -7.571774 | -0.182436 | -1.047485 |
| H | 1.507085  | 3.746977  | 1.476182  | H   | -7.268981 | -0.941081 | -1.778007 |
| C | 0.927021  | 1.610057  | 0.112386  | C   | -8.360294 | 0.924329  | -1.756720 |
| O | 2.117299  | 1.890451  | -0.045647 | H   | -9.246891 | 0.513005  | -2.251896 |
| N | 0.516713  | 0.707504  | 1.040053  | H   | -8.677743 | 1.700070  | -1.050903 |
| H | -0.471986 | 0.511737  | 1.159740  | H   | -7.729054 | 1.388291  | -2.518350 |
| C | 1.483367  | 0.013941  | 1.887648  | C   | -6.246160 | 0.375059  | -0.507529 |
| H | 2.075917  | 0.751598  | 2.438391  | O   | -5.284584 | 0.513757  | -1.263610 |

|   |           |           |           |   |           |           |           |
|---|-----------|-----------|-----------|---|-----------|-----------|-----------|
| C | 14.121009 | 0.924294  | 1.354806  | C   | 0.758632  | -0.912498 | 2.869554  |
| H | 14.951760 | 1.102346  | 2.041959  | H   | 0.071487  | -0.342253 | 3.504790  |
| H | 14.252140 | 1.549562  | 0.465227  | H   | 0.191473  | -1.677892 | 2.328553  |
| H | 13.189105 | 1.215751  | 1.851996  | H   | 1.491969  | -1.409321 | 3.510687  |
| C | 12.988807 | -0.882330 | -0.037532 | C   | 2.524765  | -0.781314 | 1.074256  |
| O | 13.234882 | -1.149837 | -1.215800 | O   | 3.676140  | -0.903668 | 1.495893  |
| N | 11.732620 | -0.827622 | 0.458898  | N   | 2.097432  | -1.333503 | -0.085529 |
| H | 11.541601 | -0.545546 | 1.415650  | H   | 1.108060  | -1.310579 | -0.313814 |
| C | 10.549978 | -0.978999 | -0.370525 | C   | 2.985040  | -2.132068 | -0.923666 |
| H | 10.709095 | -0.431633 | -1.307825 | H   | 3.404726  | -2.953047 | -0.331849 |
| C | 10.263432 | -2.454955 | -0.705790 | C   | 2.203624  | -2.695900 | -2.116385 |
| H | 11.128963 | -2.875834 | -1.223387 | H   | 1.388215  | -3.339419 | -1.768696 |
| H | 10.081800 | -3.027458 | 0.209833  | H   | 1.776842  | -1.884324 | -2.716020 |
| H | 9.387867  | -2.551828 | -1.357031 | H   | 2.877106  | -3.285544 | -2.743872 |
| C | 9.388156  | -0.337620 | 0.410206  | C   | 4.219078  | -1.355414 | -1.423590 |
| O | 9.500773  | -0.048580 | 1.603445  | O   | 5.235885  | -1.981485 | -1.737741 |
| N | 8.255783  | -0.135616 | -0.297125 | N   | 4.112627  | -0.010926 | -1.525988 |
| H | 8.156229  | -0.443672 | -1.260175 | H   | 3.277605  | 0.459621  | -1.188321 |
| C | 7.024497  | 0.346771  | 0.304841  | C   | 5.233352  | 0.812022  | -1.967600 |
| H | 6.889455  | -0.153099 | 1.271977  | H   | 5.689244  | 0.313916  | -2.829560 |
| C | 7.051152  | 1.869211  | 0.536525  | C   | 4.745497  | 2.203963  | -2.380188 |
| H | 7.893700  | 2.116280  | 1.187088  | H   | 4.064173  | 2.134035  | -3.234672 |
| H | 7.166474  | 2.399865  | -0.414331 | H   | 4.213995  | 2.692406  | -1.556595 |
| H | 6.129241  | 2.213339  | 1.017601  | H   | 5.608837  | 2.813092  | -2.657546 |
| C | 5.888581  | -0.065845 | -0.650367 | C   | 6.393200  | 0.922680  | -0.948808 |
| O | 6.127744  | -0.483445 | -1.785703 | O   | 7.442027  | 1.456709  | -1.301053 |
| N | 4.639443  | 0.077511  | -0.159981 | N   | 6.181020  | 0.395448  | 0.285056  |
| H | 4.459401  | 0.488070  | 0.751992  | H   | 5.274033  | 0.001873  | 0.521497  |
| C | 3.445010  | -0.148818 | -0.956313 | C   | 7.236579  | 0.277368  | 1.279699  |
| H | 3.608830  | 0.270571  | -1.956728 | H   | 8.057718  | 0.909471  | 0.926577  |
| C | 3.117684  | -1.647068 | -1.096357 | C   | 6.761466  | 0.762534  | 2.653996  |
| H | 3.963334  | -2.155849 | -1.565789 | H   | 6.535000  | 1.833254  | 2.620895  |
| H | 2.934171  | -2.092071 | -0.112907 | H   | 5.854825  | 0.226871  | 2.957917  |
| H | 2.230070  | -1.801091 | -1.719239 | H   | 7.542679  | 0.576335  | 3.394229  |
| C | 2.310438  | 0.620111  | -0.252094 | C   | 7.820427  | -1.152156 | 1.388940  |
| O | 2.453394  | 1.061470  | 0.890292  | O   | 8.615230  | -1.428418 | 2.287489  |
| N | 1.167507  | 0.743880  | -0.959223 | N   | 7.428550  | -2.046264 | 0.450682  |
| H | 1.082475  | 0.393984  | -1.907647 | H   | 6.775453  | -1.782682 | -0.279251 |
| C | -0.027128 | 1.401742  | -0.440658 | C   | 7.946952  | -3.400269 | 0.450508  |
| H | -0.093417 | 1.179500  | 0.629498  | H   | 7.882483  | -3.831335 | 1.454649  |
| C | 0.075522  | 2.937503  | -0.623487 | H   | 7.352316  | -3.997461 | -0.244742 |
| H | 1.005894  | 3.222135  | -0.119619 | H   | 8.999636  | -3.432093 | 0.140984  |
| H | 0.211649  | 3.149006  | -1.692111 | <b>Ac-(Ala)<sub>4</sub>-Leu-(Ala)<sub>4</sub>-NHMe C5</b> |           |           |           |
| C | -1.097093 | 3.776520  | -0.059685 | C   | 17.666915 | -1.752099 | 0.272114  |
| H | -1.547363 | 3.226823  | 0.781370  | H   | 17.465963 | -1.853455 | -0.798870 |
| C | -0.578618 | 5.113078  | 0.495330  | H   | 17.975655 | -2.723168 | 0.671594  |
| H | -1.399196 | 5.720271  | 0.895218  | H   | 18.504205 | -1.061342 | 0.413169  |
| H | 0.149186  | 4.956239  | 1.299708  | C   | 16.473907 | -1.249310 | 1.073510  |
| H | -0.086104 | 5.697696  | -0.292594 | O   | 16.528096 | -1.092602 | 2.290741  |
| C | -2.194516 | 4.029326  | -1.106472 | N   | 15.354004 | -0.979816 | 0.348464  |
| H | -3.040650 | 4.566970  | -0.663082 | H   | 15.284610 | -1.192053 | -0.640491 |
| H | -1.804070 | 4.641245  | -1.929662 | C   | 14.109660 | -0.567613 | 0.968156  |
| H | -2.579505 | 3.101186  | -1.539528 | H   | 13.962024 | -1.159938 | 1.880154  |

|   |            |           |           |  |            |                        |           |
|---|------------|-----------|-----------|--|------------|------------------------|-----------|
| C | -12.979796 | -0.836240 | 0.046545  | C  | -1.202750  | 0.770171               | -1.199975 |
| O | -12.416466 | -0.888371 | -1.049971 | O  | -1.086921  | 0.467373               | -2.389840 |
| N | -12.531585 | -0.032693 | 1.049834  | N  | -2.330876  | 0.570052               | -0.485952 |
| H | -12.991347 | -0.056755 | 1.949595  | H  | -2.422779  | 0.880898               | 0.477105  |
| C | -11.425470 | 0.915753  | 0.876997  | C  | -3.567242  | 0.084935               | -1.076405 |
| H | -11.497213 | 1.283089  | -0.153318 | H  | -3.718099  | 0.589900               | -2.038846 |
| C | -11.562689 | 2.071486  | 1.862424  | C  | -3.533601  | -1.435654              | -1.317916 |
| H | -12.526755 | 2.571886  | 1.727640  | H  | -2.698001  | -1.672853              | -1.980809 |
| H | -11.474815 | 1.718644  | 2.894805  | H  | -3.403091  | -1.971587              | -0.372033 |
| H | -10.764288 | 2.800342  | 1.703558  | H  | -4.459150  | -1.782705              | -1.789615 |
| C | -10.055294 | 0.209546  | 1.024851  | C  | -4.692259  | 0.487424               | -0.103254 |
| O | -9.301462  | 0.439649  | 1.976525  | O  | -4.437847  | 0.918481               | 1.023694  |
| N | -9.760391  | -0.656355 | 0.028650  | N  | -5.948089  | 0.320749               | -0.567870 |
| H | -10.480386 | -0.816409 | -0.678104 | H  | -6.140173  | -0.099840              | -1.472734 |
| C | -8.601523  | -1.555121 | 0.077065  | C  | -7.129148  | 0.535914               | 0.251483  |
| H | -8.449568  | -1.823753 | 1.130312  | H  | -6.936595  | 0.131698               | 1.252731  |
| C | -8.872668  | -2.805481 | -0.753831 | C  | -7.480398  | 2.029842               | 0.380722  |
| H | -9.773313  | -3.310800 | -0.391752 | H  | -6.634950  | 2.558792               | 0.827633  |
| H | -9.002744  | -2.551386 | -1.809657 | H  | -7.690782  | 2.460263               | -0.603846 |
| H | -8.028385  | -3.495765 | -0.685195 | H  | -8.357895  | 2.176130               | 1.019784  |
| C | -7.317070  | -0.833463 | -0.398123 | C  | -8.265156  | -0.260192              | -0.418192 |
| O | -6.724769  | -1.161989 | -1.431229 | O  | -8.144926  | -0.703898              | -1.562272 |
| N | -6.896676  | 0.162327  | 0.416845  | N  | -9.380855  | -0.414056              | 0.324975  |
| H | -7.479507  | 0.383930  | 1.225529  | H  | -9.481250  | 0.005907               | 1.244635  |
| C | -5.812524  | 1.079622  | 0.050069  | C  | -10.589766 | -1.042757              | -0.180967 |
| H | -5.862286  | 1.212377  | -1.038116 | H  | -10.770517 | -0.683034              | -1.201345 |
| C | -5.997751  | 2.419841  | 0.754715  | C  | -10.475236 | -2.578638              | -0.211579 |
| H | -6.974936  | 2.844327  | 0.504360  | H  | -9.632983  | -2.861556              | -0.847660 |
| H | -5.922074  | 2.303754  | 1.839678  | H  | -10.308341 | -2.970275              | 0.797248  |
| H | -5.218930  | 3.121396  | 0.445747  | H  | -11.384332 | -3.035684              | -0.616929 |
| C | -4.429850  | 0.462354  | 0.371682  | C  | -11.731548 | -0.577323              | 0.741242  |
| O | -3.689005  | 0.931012  | 1.242879  | O  | -11.498636 | -0.022835              | 1.817601  |
| N | -4.104986  | -0.610330 | -0.387041 | N  | -12.979822 | -0.836862              | 0.297334  |
| H | -4.812028  | -0.948244 | -1.042512 | H  | -13.155620 | -1.343414              | -0.565491 |
| C | -2.931615  | -1.447970 | -0.116487 | C  | -14.167810 | -0.574747              | 1.091280  |
| H | -2.794409  | -1.464605 | 0.972342  | H  | -13.958341 | -0.858658              | 2.130177  |
| C | -3.164041  | -2.861100 | -0.641676 | C  | -14.569211 | 0.912126               | 1.055540  |
| H | -4.066227  | -3.287149 | -0.191815 | H  | -13.739910 | 1.514965               | 1.433710  |
| H | -3.270653  | -2.859057 | -1.730146 | H  | -14.799051 | 1.221900               | 0.031022  |
| H | -2.312121  | -3.500583 | -0.397468 | H  | -15.448488 | 1.102045               | 1.681049  |
| C | -1.652178  | -0.826543 | -0.728404 | C  | -15.276509 | -1.475388              | 0.514665  |
| O | -1.046426  | -1.359828 | -1.664462 | O  | -15.154437 | -2.001731              | -0.589552 |
| N | -1.257856  | 0.328793  | -0.144520 | N  | -16.375757 | -1.612066              | 1.298332  |
| H | -1.859882  | 0.712262  | 0.586089  | H  | -16.380080 | -1.164724              | 2.204249  |
| C | -0.174401  | 1.156664  | -0.689130 | C  | -17.540662 | -2.388258              | 0.902068  |
| H | -0.198780  | 1.027305  | -1.778581 | H  | -17.713482 | -3.217427              | 1.597105  |
| C | -0.386014  | 2.632823  | -0.320205 | H  | -18.437419 | -1.759659              | 0.866770  |
| H | -1.462467  | 2.797308  | -0.187124 | H  | -17.344533 | -2.790255              | -0.092267 |
| H | 0.095047   | 2.823509  | 0.646211  | <u>Ac-(Ala)<sub>4</sub>-Leu-(Ala)<sub>4</sub>-NHMe</u> |            | <u>C7<sub>eq</sub></u> |           |
| C | 0.126736   | 3.640593  | -1.369645 | C  | -14.219844 | -1.657674              | 0.344691  |
| H | -0.409810  | 3.437569  | -2.309969 | H  | -14.575913 | -1.559639              | 1.374513  |
| C | -0.220109  | 5.071118  | -0.931595 | H  | -14.007256 | -2.710130              | 0.136118  |
| H | 0.084364   | 5.800682  | -1.690913 | H  | -15.017744 | -1.345555              | -0.336754 |

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|                                     |           |           |           |   |           |           |           |
|-------------------------------------|-----------|-----------|-----------|---|-----------|-----------|-----------|
| H                                   | 14.356023 | -0.783416 | 2.181453  | H | -1.297358 | 5.190009  | -0.763971 |
| H                                   | 14.356023 | -0.783416 | 2.181453  | H | 0.293626  | 5.328887  | 0.003218  |
| <u>Ac-(Ala)4-Ile-(Ala)4-NHMe αR</u> |           |           |           |   |           |           |           |
| C                                   | -8.959149 | -2.846824 | 1.097236  | H | 1.949185  | 4.259809  | -2.387181 |
| H                                   | -9.872027 | -2.291077 | 1.331383  | H | 2.215076  | 3.661318  | -0.736606 |
| H                                   | -8.545343 | -3.270797 | 2.015327  | H | 1.892210  | 2.525837  | -2.055028 |
| H                                   | -9.219119 | -3.683167 | 0.438485  | C | 1.181523  | 0.602909  | -0.179260 |
| C                                   | -7.898045 | -2.003311 | 0.419138  | O | 1.835267  | 1.154825  | 0.711799  |
| O                                   | -6.725142 | -2.365025 | 0.336429  | N | 1.569095  | -0.546593 | -0.783482 |
| N                                   | -8.311637 | -0.801781 | -0.096569 | H | 0.882189  | -0.984916 | -1.399671 |
| H                                   | -9.305837 | -0.612992 | -0.120167 | C | 2.643419  | -1.393338 | -0.248420 |
| C                                   | -7.470141 | -0.052867 | -1.034611 | H | 2.623409  | -1.288930 | 0.844747  |
| H                                   | -7.148448 | -0.718877 | -1.843234 | C | 2.401326  | -2.847062 | -0.643850 |
| C                                   | -8.251717 | 1.127099  | -1.623319 | H | 1.417360  | -3.174233 | -0.293607 |
| H                                   | -9.128127 | 0.774029  | -2.177967 | H | 2.453197  | -2.967560 | -1.729669 |
| H                                   | -8.584275 | 1.814668  | -0.837552 | H | 3.167014  | -3.491648 | -0.205813 |
| H                                   | -7.610152 | 1.678439  | -2.314900 | C | 4.039476  | -0.915568 | -0.716754 |
| C                                   | -6.158438 | 0.441629  | -0.406348 | O | 4.762495  | -1.616538 | -1.433535 |
| O                                   | -5.180821 | 0.667102  | -1.120340 | N | 4.408549  | 0.298867  | -0.249345 |
| N                                   | -6.145107 | 0.633494  | 0.934715  | H | 3.726936  | 0.812845  | 0.311681  |
| H                                   | -6.969461 | 0.386365  | 1.465757  | C | 5.644007  | 0.966223  | -0.672501 |
| C                                   | -4.934326 | 1.051828  | 1.631920  | H | 5.812185  | 0.686309  | -1.719930 |
| H                                   | -4.590761 | 1.997510  | 1.201185  | C | 5.500811  | 2.479168  | -0.545592 |
| C                                   | -5.216342 | 1.244050  | 3.125458  | H | 4.655079  | 2.830503  | -1.144134 |
| H                                   | -5.978936 | 2.014971  | 3.278637  | H | 5.350766  | 2.769389  | 0.498373  |
| H                                   | -5.557820 | 0.310549  | 3.588154  | H | 6.410869  | 2.974248  | -0.893625 |
| H                                   | -4.300262 | 1.559920  | 3.630142  | C | 6.857975  | 0.451364  | 0.140043  |
| C                                   | -3.752325 | 0.084423  | 1.429973  | O | 7.468970  | 1.173285  | 0.934704  |
| O                                   | -2.600884 | 0.516538  | 1.568069  | N | 7.192777  | -0.836842 | -0.106089 |
| N                                   | -4.022611 | -1.203650 | 1.132762  | H | 6.589634  | -1.361311 | -0.741507 |
| H                                   | -4.978727 | -1.505893 | 0.954453  | C | 8.184432  | -1.563099 | 0.694266  |
| C                                   | -2.935336 | -2.150707 | 0.892492  | H | 8.117975  | -1.168402 | 1.716222  |
| H                                   | -2.269103 | -2.139693 | 1.759857  | C | 7.872942  | -3.056428 | 0.683897  |
| C                                   | -3.490154 | -3.564599 | 0.689642  | H | 6.860828  | -3.233698 | 1.061211  |
| H                                   | -4.030333 | -3.897328 | 1.581693  | H | 7.956217  | -3.463898 | -0.327802 |
| H                                   | -4.176813 | -3.603176 | -0.161890 | H | 8.585535  | -3.595626 | 1.312728  |
| H                                   | -2.661308 | -4.252934 | 0.505660  | C | 9.625171  | -1.289539 | 0.194755  |
| C                                   | -2.034865 | -1.748527 | -0.293446 | O | 10.329424 | -2.183884 | -0.286986 |
| O                                   | -0.853278 | -2.099742 | -0.297367 | N | 10.039718 | -0.012385 | 0.350075  |
| N                                   | -2.607547 | -1.056254 | -1.308327 | H | 9.371956  | 0.653433  | 0.740563  |
| H                                   | -3.556890 | -0.704806 | -1.216025 | C | 11.313602 | 0.484028  | -0.183772 |
| C                                   | -1.814764 | -0.617959 | -2.454504 | H | 11.504842 | -0.074213 | -1.108376 |
| H                                   | -1.199187 | -1.460318 | -2.779968 | C | 11.211371 | 1.977000  | -0.476738 |
| C                                   | -2.728769 | -0.172526 | -3.601036 | H | 10.389612 | 2.173140  | -1.173140 |
| H                                   | -3.342487 | -1.010071 | -3.949305 | H | 11.047183 | 2.542157  | 0.445310  |
| H                                   | -3.393895 | 0.638257  | -3.285415 | H | 12.144092 | 2.338410  | -0.917020 |
| H                                   | -2.115141 | 0.180697  | -4.433912 | C | 12.482699 | 0.187199  | 0.793918  |
| C                                   | -0.797344 | 0.491641  | -2.109078 | O | 13.076034 | 1.079356  | 1.391642  |
| O                                   | 0.224755  | 0.612634  | -2.775997 | N | 12.780377 | -1.136309 | 0.894745  |
| N                                   | -1.129729 | 1.326122  | -1.084010 | H | 12.160066 | -1.787306 | 0.416919  |
| H                                   | -1.909464 | 1.076179  | -0.487139 | C | 13.785649 | -1.637132 | 1.812123  |
| C                                   | -0.173497 | 2.304278  | -0.569322 | H | 13.333325 | -2.156651 | 2.667505  |
| H                                   | 0.345337  | 2.738228  | -1.427863 | H | 14.462532 | -2.331864 | 1.301918  |

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|                                     |           |           |           |   |           |           |           |
|-------------------------------------|-----------|-----------|-----------|---|-----------|-----------|-----------|
| H                                   | -1.480534 | 4.615501  | -1.505168 | C | -0.898724 | 3.421984  | 0.226355  |
| C                                   | 0.113552  | 4.438730  | 0.796654  | H | -1.413687 | 2.941085  | 1.072116  |
| H                                   | 0.903628  | 3.906058  | 1.336607  | C | 0.937347  | 1.612642  | 0.249397  |
| H                                   | 0.615746  | 4.946227  | -0.038815 | O | 2.121655  | 1.923377  | 0.110851  |
| C                                   | -0.504749 | 5.480651  | 1.736545  | N | 0.543537  | 0.646274  | 1.119837  |
| H                                   | 0.274705  | 6.121216  | 2.163381  | H | -0.441334 | 0.428146  | 1.231451  |
| H                                   | -1.218998 | 6.133647  | 1.223567  | C | 1.523675  | -0.083384 | 1.919648  |
| H                                   | -1.030623 | 4.999549  | 2.571360  | H | 2.110166  | 0.628088  | 2.509829  |
| <u>Ac-(Ala)4-Ile-(Ala)4-NHMe_C5</u> |           |           |           | C | 0.816576  | -1.076412 | 2.847932  |
| C                                   | 17.825168 | -1.125541 | -0.037981 | H | 0.123938  | -0.554262 | 3.517475  |
| H                                   | 17.560550 | -1.543848 | -1.014007 | H | 0.257785  | -1.816625 | 2.264731  |
| H                                   | 18.207707 | -1.927252 | 0.601817  | H | 1.559451  | -1.599948 | 3.455945  |
| H                                   | 18.633603 | -0.399562 | -0.168123 | C | 2.570562  | -0.814512 | 1.054923  |
| C                                   | 16.662375 | -0.444326 | 0.670688  | O | 3.724740  | -0.950818 | 1.464320  |
| O                                   | 16.797763 | 0.105826  | 1.760711  | N | 2.145475  | -1.294600 | -0.137774 |
| N                                   | 15.471882 | -0.484920 | 0.012188  | H | 1.154706  | -1.271302 | -0.359880 |
| H                                   | 15.343205 | -1.016271 | -0.841707 | C | 3.039675  | -2.022485 | -1.031469 |
| C                                   | 14.249317 | 0.041255  | 0.587366  | H | 3.473980  | -2.875165 | -0.497864 |
| H                                   | 14.221162 | -0.227216 | 1.651132  | C | 2.259261  | -2.516068 | -2.255633 |
| C                                   | 14.168755 | 1.576031  | 0.471862  | H | 1.455070  | -3.193326 | -1.948317 |
| H                                   | 15.034178 | 2.011524  | 0.977174  | H | 1.817577  | -1.672250 | -2.797444 |
| H                                   | 14.176869 | 1.882083  | -0.579701 | H | 2.937235  | -3.051966 | -2.925030 |
| H                                   | 13.258677 | 1.965485  | 0.941597  | C | 4.259609  | -1.196615 | -1.484496 |
| C                                   | 13.084091 | -0.643513 | -0.147730 | O | 5.280507  | -1.786493 | -1.851282 |
| O                                   | 13.261982 | -1.278099 | -1.189896 | N | 4.136722  | 0.150331  | -1.489133 |
| N                                   | 11.867224 | -0.484736 | 0.419422  | H | 3.301428  | 0.585716  | -1.107396 |
| H                                   | 11.726464 | 0.093349  | 1.242500  | C | 5.244567  | 1.015123  | -1.880178 |
| C                                   | 10.641859 | -0.957073 | -0.200910 | H | 5.701417  | 0.579979  | -2.775032 |
| H                                   | 10.697759 | -0.757799 | -1.278102 | C | 4.738364  | 2.425106  | -2.198299 |
| C                                   | 10.432367 | -2.468677 | 0.009308  | H | 4.054567  | 2.403129  | -3.053339 |
| H                                   | 11.286547 | -3.007129 | -0.408727 | H | 4.204221  | 2.851966  | -1.342876 |
| H                                   | 10.352548 | -2.699448 | 1.076770  | H | 5.593355  | 3.061545  | -2.437599 |
| H                                   | 9.522510  | -2.816811 | -0.491731 | C | 6.408810  | 1.071347  | -0.861880 |
| C                                   | 9.496961  | -0.134284 | 0.417619  | O | 7.447195  | 1.645548  | -1.180293 |
| O                                   | 9.670302  | 0.540216  | 1.435028  | N | 6.213116  | 0.452622  | 0.331677  |
| N                                   | 8.310315  | -0.222564 | -0.220421 | H | 5.313154  | 0.030603  | 0.544662  |
| H                                   | 8.169889  | -0.831042 | -1.021927 | C | 7.277338  | 0.277427  | 1.308346  |
| C                                   | 7.093583  | 0.392846  | 0.281830  | H | 8.091027  | 0.937077  | 0.989848  |
| H                                   | 7.045257  | 0.237451  | 1.366640  | C | 6.811805  | 0.669023  | 2.715181  |
| C                                   | 7.051046  | 1.906066  | -0.002139 | H | 6.580527  | 1.738490  | 2.753940  |
| H                                   | 7.916909  | 2.381049  | 0.465646  | H | 5.909957  | 0.110430  | 2.990987  |
| H                                   | 7.079600  | 2.094400  | -1.080446 | H | 7.599955  | 0.438376  | 3.435275  |
| H                                   | 6.142464  | 2.360985  | 0.406905  | C | 7.871896  | -1.151738 | 1.318223  |
| C                                   | 5.926524  | -0.347681 | -0.398147 | O | 8.669618  | -1.483953 | 2.194970  |
| O                                   | 6.119102  | -1.098788 | -1.357094 | N | 7.488051  | -1.980901 | 0.318908  |
| N                                   | 4.704161  | -0.101309 | 0.117620  | H | 6.831529  | -1.673149 | -0.390329 |
| H                                   | 4.556451  | 0.570104  | 0.865927  | C | 8.019647  | -3.326445 | 0.222833  |
| C                                   | 3.478882  | -0.616793 | -0.469918 | H | 7.962610  | -3.826998 | 1.194605  |
| H                                   | 3.553402  | -0.533600 | -1.561070 | H | 7.428668  | -3.879569 | -0.510938 |
| C                                   | 3.237190  | -2.092955 | -0.102749 | H | 9.071574  | -3.325981 | -0.090896 |
| H                                   | 4.082891  | -2.691211 | -0.450876 | C | -1.955771 | 4.103997  | -0.658445 |
| H                                   | 3.141575  | -2.207432 | 0.982071  | H | -2.671093 | 3.383162  | -1.066637 |
| H                                   | 2.325187  | -2.474323 | -0.574589 | H | -2.521158 | 4.850917  | -0.092093 |

|  |            |           |           |   |            |           |           |
|--|------------|-----------|-----------|---|------------|-----------|-----------|
| H  | -18.238767 | -1.738649 | 1.630009  | C | 2.343589   | 0.290678  | 0.041384  |
| H  | -18.697818 | -0.762910 | 0.208967  | O | 2.527637   | 1.078308  | 0.972222  |
| H  | -17.632596 | -2.177872 | 0.013550  | N | 1.158200   | 0.143749  | -0.586928 |
| C  | -0.260580  | 2.331009  | -2.226598 | H | 1.014804   | -0.558693 | -1.306300 |
| H  | -0.132199  | 3.351333  | -2.600867 | C | -0.058069  | 0.820475  | -0.159694 |
| H  | 0.496287   | 1.705101  | -2.710376 | H | -0.054757  | 0.866712  | 0.935583  |
| H  | -1.245576  | 1.975900  | -2.553090 | C | -0.123252  | 2.286253  | -0.698441 |
| C  | -1.196501  | 3.123821  | 0.026352  | H | 0.852706   | 2.707702  | -0.423729 |
| H  | -2.200803  | 2.797308  | -0.273443 | C | -1.215232  | -0.072538 | -0.645486 |
| H  | -1.119022  | 2.938142  | 1.107662  | O | -1.048475  | -0.875800 | -1.567474 |
| C  | -1.067895  | 4.633453  | -0.212508 | N | -2.395938  | 0.082755  | -0.009959 |
| H  | -1.810321  | 5.182136  | 0.377357  | H | -2.537041  | 0.793400  | 0.701853  |
| H  | -0.074877  | 4.996137  | 0.079444  | C | -3.611130  | -0.597237 | -0.428103 |
| H  | -1.224612  | 4.897284  | -1.264061 | H | -3.646631  | -0.602273 | -1.524259 |
| <u>Ac-(Ala)4-Ile-(Ala)4-NHMe C7<sub>eq</sub></u> |            |           |           | C | -3.659535  | -2.052842 | 0.072399  |
| C  | 14.206455  | -1.548211 | -0.104879 | H | -2.793103  | -2.592802 | -0.317550 |
| H  | 14.581154  | -1.488279 | -1.131009 | H | -3.636407  | -2.083972 | 1.166711  |
| H  | 13.998368  | -2.593449 | 0.141502  | H | -4.567056  | -2.560832 | -0.271114 |
| H  | 14.988661  | -1.202431 | 0.578413  | C | -4.781745  | 0.239742  | 0.121658  |
| C  | 12.954514  | -0.726509 | 0.137470  | O | -4.592706  | 1.138129  | 0.945418  |
| O  | 12.378260  | -0.730736 | 1.228492  | N | -6.002588  | -0.089947 | -0.348714 |
| N  | 12.509929  | 0.021108  | -0.909717 | H | -6.147699  | -0.870628 | -0.982751 |
| H  | 12.979937  | -0.043177 | -1.802149 | C | -7.229553  | 0.518498  | 0.138094  |
| C  | 11.389829  | 0.962141  | -0.797977 | H | -7.163041  | 0.613177  | 1.228778  |
| H  | 11.443574  | 1.381158  | 0.213507  | C | -7.462420  | 1.915676  | -0.466587 |
| C  | 11.524974  | 2.069116  | -1.838266 | H | -6.615179  | 2.559011  | -0.216577 |
| H  | 12.480774  | 2.588350  | -1.716657 | H | -7.553101  | 1.850996  | -1.555871 |
| H  | 11.455104  | 1.663958  | -2.852674 | H | -8.374484  | 2.372199  | -0.067388 |
| H  | 10.715305  | 2.794196  | -1.726044 | C | -8.364677  | -0.455397 | -0.229754 |
| C  | 10.030956  | 0.231020  | -0.927200 | O | -8.182225  | -1.373411 | -1.032374 |
| O  | 9.287067   | 0.402215  | -1.898922 | N | -9.550592  | -0.216735 | 0.368324  |
| N  | 9.733654   | -0.587834 | 0.107489  | H | -9.697096  | 0.578867  | 0.983070  |
| H  | 10.446166  | -0.702762 | 0.830446  | C | -10.759824 | -0.958302 | 0.051173  |
| C  | 8.589032   | -1.505601 | 0.086733  | H | -10.809028 | -1.096928 | -1.035822 |
| H  | 8.456560   | -1.826340 | -0.954541 | C | -10.785666 | -2.342015 | 0.727322  |
| C  | 8.865891   | -2.710774 | 0.980188  | H | -9.914416  | -2.915158 | 0.400928  |
| H  | 9.780091   | -3.218042 | 0.656848  | H | -10.756381 | -2.236867 | 1.816855  |
| H  | 8.974309   | -2.405285 | 2.024784  | H | -11.688702 | -2.899022 | 0.455206  |
| H  | 8.033596   | -3.417077 | 0.930876  | C | -11.935191 | -0.077930 | 0.513859  |
| C  | 7.286912   | -0.782407 | 0.508387  | O | -11.754609 | 0.895062  | 1.249408  |
| O  | 6.682556   | -1.072975 | 1.545941  | N | -13.153973 | -0.458713 | 0.075791  |
| N  | 6.865205   | 0.168879  | -0.357481 | H | -13.292763 | -1.291242 | -0.489639 |
| H  | 7.456955   | 0.361034  | -1.167267 | C | -14.382233 | 0.190195  | 0.500759  |
| C  | 5.761487   | 1.084802  | -0.050072 | H | -14.309992 | 0.396842  | 1.575867  |
| H  | 5.791464   | 1.267111  | 1.031642  | C | -14.621384 | 1.517466  | -0.243997 |
| C  | 5.937942   | 2.394393  | -0.812200 | H | -13.778227 | 2.187786  | -0.059978 |
| H  | 6.903733   | 2.846051  | -0.565198 | H | -14.710578 | 1.341213  | -1.320757 |
| H  | 5.883655   | 2.227489  | -1.891835 | H | -15.536723 | 2.008693  | 0.104067  |
| H  | 5.142667   | 3.096171  | -0.549242 | C | -15.514833 | -0.819439 | 0.235446  |
| C  | 4.393879   | 0.432031  | -0.364356 | O | -15.338063 | -1.792063 | -0.495185 |
| O  | 3.655727   | 0.851968  | -1.262915 | N | -16.695208 | -0.535368 | 0.841523  |
| N  | 4.074456   | -0.614708 | 0.431150  | H | -16.744864 | 0.274307  | 1.443869  |
| H  | 4.777313   | -0.914259 | 1.109558  | C | -17.891217 | -1.345327 | 0.668390  |

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|                                     |            |           |           |   |            |           |           |
|-------------------------------------|------------|-----------|-----------|---|------------|-----------|-----------|
| H                                   | -12.045304 | 2.174591  | 1.630084  | C | 2.926315   | -1.488745 | 0.169259  |
| C                                   | -12.546962 | 0.308330  | -0.355217 | H | 2.803632   | -1.533618 | -0.920959 |
| O                                   | -13.183368 | 1.277123  | -0.757375 | C | 3.192306   | -2.883722 | 0.727116  |
| N                                   | -12.862281 | -0.986610 | -0.627458 | H | 4.102503   | -3.299289 | 0.283655  |
| H                                   | -12.206742 | -1.698262 | -0.310106 | H | 3.304883   | -2.854411 | 1.814900  |
| C                                   | -13.946681 | -1.350201 | -1.519069 | H | 2.353547   | -3.546849 | 0.503592  |
| H                                   | -13.572251 | -1.763063 | -2.465193 | C | 1.613991   | -0.897982 | 0.741323  |
| H                                   | -14.601705 | -2.093838 | -1.050553 | O | 0.946209   | -1.495095 | 1.593064  |
| H                                   | -14.521228 | -0.447284 | -1.731677 | N | 1.254849   | 0.294791  | 0.212994  |
| C                                   | 0.665452   | 3.087492  | -0.809556 | H | 1.860618   | 0.689198  | -0.507005 |
| H                                   | 0.875840   | 4.161937  | -0.801306 | C | 0.117744   | 1.069839  | 0.718472  |
| H                                   | 1.545255   | 2.604047  | -1.249259 | H | 0.030780   | 0.813323  | 1.781576  |
| H                                   | -0.193840  | 2.908106  | -1.459664 | C | 0.384558   | 2.590379  | 0.620245  |
| C                                   | -0.749207  | 3.380370  | 1.311887  | H | 1.298056   | 2.746859  | 1.214827  |
| H                                   | -1.645729  | 3.340558  | 0.683862  | C | -1.194856  | 0.582069  | 0.053610  |
| H                                   | -1.005128  | 2.876063  | 2.255280  | O | -1.853355  | 1.254545  | -0.749324 |
| C                                   | -0.393793  | 4.838492  | 1.624255  | N | -1.564846  | -0.662733 | 0.441945  |
| H                                   | -1.212039  | 5.328388  | 2.163848  | H | -0.927118  | -1.167243 | 1.060405  |
| H                                   | 0.503881   | 4.904254  | 2.251984  | C | -2.642623  | -1.408900 | -0.215869 |
| H                                   | -0.208605  | 5.420921  | 0.715361  | H | -2.642323  | -1.106831 | -1.271107 |
| H                                   | -0.208605  | 5.420921  | 0.715361  | C | -2.391092  | -2.908885 | -0.095645 |
| <b>Ac-(Ala)4-Phe-(Ala)4-NHMe αR</b> |            |           |           | H | -1.418073  | -3.163693 | -0.527072 |
| C                                   | -9.175996  | -2.594968 | 1.604094  | H | -2.414480  | -3.224876 | 0.951193  |
| H                                   | -10.075936 | -1.987752 | 1.739101  | H | -3.169011  | -3.466485 | -0.622932 |
| H                                   | -8.754889  | -2.843690 | 2.581291  | C | -4.025949  | -1.026661 | 0.364519  |
| H                                   | -9.459192  | -3.536825 | 1.120861  | O | -4.721920  | -1.836511 | 0.986666  |
| C                                   | -8.111626  | -1.917647 | 0.764120  | N | -4.408280  | 0.246831  | 0.114141  |
| O                                   | -6.950738  | -2.322899 | 0.724688  | H | -3.742154  | 0.846506  | -0.375465 |
| N                                   | -8.507442  | -0.815720 | 0.049699  | C | -5.602902  | 0.848586  | 0.715452  |
| H                                   | -9.496572  | -0.603976 | 0.013192  | H | -5.714516  | 0.404467  | 1.712722  |
| C                                   | -7.671444  | -0.271540 | -1.024168 | C | -5.431290  | 2.360203  | 0.826232  |
| H                                   | -7.389401  | -1.080088 | -1.708052 | H | -4.539196  | 2.596367  | 1.414875  |
| C                                   | -8.436089  | 0.808409  | -1.797952 | H | -5.340696  | 2.815386  | -0.164346 |
| H                                   | -9.335852  | 0.389649  | -2.262240 | H | -6.303511  | 2.805404  | 1.311251  |
| H                                   | -8.729483  | 1.635125  | -1.141266 | C | -6.874386  | 0.486148  | -0.090854 |
| H                                   | -7.798050  | 1.207133  | -2.590269 | O | -7.528643  | 1.336975  | -0.702219 |
| C                                   | -6.330796  | 0.286025  | -0.523182 | N | -7.206426  | -0.825347 | -0.052254 |
| O                                   | -5.369638  | 0.356135  | -1.289229 | H | -6.572006  | -1.453339 | 0.443921  |
| N                                   | -6.274319  | 0.707353  | 0.763459  | C | -8.261709  | -1.399107 | -0.893426 |
| H                                   | -7.089319  | 0.582247  | 1.348751  | H | -8.265818  | -0.828685 | -1.830885 |
| C                                   | -5.037207  | 1.210419  | 1.349069  | C | -7.968613  | -2.870079 | -1.172012 |
| H                                   | -4.681003  | 2.050520  | 0.744591  | H | -6.988171  | -2.976233 | -1.646975 |
| C                                   | -5.278978  | 1.683167  | 2.786172  | H | -7.985259  | -3.452285 | -0.246166 |
| H                                   | -6.014503  | 2.494111  | 2.807342  | H | -8.730503  | -3.288209 | -1.834543 |
| H                                   | -5.637887  | 0.862593  | 3.418723  | C | -9.655988  | -1.219553 | -0.243742 |
| H                                   | -4.342518  | 2.055156  | 3.208283  | O | -10.321928 | -2.183114 | 0.150692  |
| C                                   | -3.883263  | 0.190124  | 1.305990  | N | -10.075645 | 0.063284  | -0.165375 |
| O                                   | -2.719304  | 0.607862  | 1.370292  | H | -9.433252  | 0.786676  | -0.490196 |
| N                                   | -4.189867  | -1.119483 | 1.212014  | C | -11.294311 | 0.461615  | 0.549384  |
| H                                   | -5.157547  | -1.418767 | 1.104765  | H | -11.405212 | -0.232971 | 1.390953  |
| C                                   | -3.133902  | -2.124364 | 1.100773  | C | -11.158625 | 1.893359  | 1.056349  |
| H                                   | -2.460312  | -2.019055 | 1.956227  | H | -10.275386 | 1.989386  | 1.696190  |
| C                                   | -3.735843  | -3.533532 | 1.091669  | H | -11.077792 | 2.593543  | 0.219884  |

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|                                     |           |           |           |   |           |           |           |
|-------------------------------------|-----------|-----------|-----------|---|-----------|-----------|-----------|
| O                                   | 7.429709  | 0.837878  | -1.434479 | H | -4.291224 | -3.721119 | 2.016014  |
| N                                   | 6.125844  | -0.032186 | 0.231179  | H | -4.419879 | -3.666269 | 0.247499  |
| H                                   | 5.200950  | -0.357236 | 0.500121  | H | -2.930514 | -4.268067 | 1.011411  |
| C                                   | 7.182663  | -0.139275 | 1.225707  | C | -2.230928 | -1.916572 | -0.132649 |
| H                                   | 8.038013  | 0.408868  | 0.817524  | O | -1.060364 | -2.300069 | -0.091615 |
| C                                   | 6.755417  | 0.483280  | 2.559649  | N | -2.789226 | -1.354408 | -1.232625 |
| H                                   | 6.596651  | 1.560212  | 2.442270  | H | -3.732113 | -0.975796 | -1.194003 |
| H                                   | 5.820211  | 0.032569  | 2.911577  | C | -1.989670 | -1.107823 | -2.430965 |
| H                                   | 7.531200  | 0.306683  | 3.307917  | H | -1.412173 | -2.010918 | -2.644393 |
| C                                   | 7.674407  | -1.590568 | 1.445202  | C | -2.896326 | -0.780052 | -3.622199 |
| O                                   | 8.446376  | -1.849661 | 2.368525  | H | -3.551383 | -1.627591 | -3.850171 |
| N                                   | 7.231068  | -2.524327 | 0.570649  | H | -3.520803 | 0.095520  | -3.415560 |
| H                                   | 6.598665  | -2.273975 | -0.181896 | H | -2.277572 | -0.571502 | -4.498935 |
| C                                   | 7.659144  | -3.905522 | 0.674886  | C | -0.923874 | -0.005573 | -2.240188 |
| H                                   | 7.577338  | -4.249428 | 1.710741  | O | 0.097949  | -0.017138 | -2.917205 |
| H                                   | 7.018552  | -4.514812 | 0.032931  | N | -1.218771 | 0.974226  | -1.338336 |
| H                                   | 8.703890  | -4.032737 | 0.362545  | H | -2.001249 | 0.832042  | -0.710037 |
| C                                   | 0.004247  | 4.306489  | 0.084708  | C | -0.220078 | 1.966858  | -0.951023 |
| C                                   | 0.472234  | 5.204385  | -0.884086 | H | 0.308372  | 2.280247  | -1.853264 |
| C                                   | 0.423791  | 4.474120  | 1.409656  | C | -0.929190 | 3.178061  | -0.299044 |
| C                                   | 1.340343  | 6.239428  | -0.539422 | H | -1.673381 | 3.536154  | -1.021940 |
| H                                   | 0.153265  | 5.090817  | -1.918253 | H | -1.481738 | 2.829359  | 0.581862  |
| C                                   | 1.292502  | 5.509124  | 1.759659  | C | 0.874530  | 1.360690  | -0.046306 |
| H                                   | 0.069968  | 3.784862  | 2.173253  | O | 2.065885  | 1.590986  | -0.245747 |
| C                                   | 1.753659  | 6.394744  | 0.785483  | N | 0.451168  | 0.555806  | 0.965833  |
| H                                   | 1.694158  | 6.925028  | -1.304863 | H | -0.539815 | 0.390133  | 1.108398  |
| H                                   | 1.609839  | 5.621457  | 2.793029  | C | 1.411259  | -0.093583 | 1.854305  |
| H                                   | 2.431277  | 7.200123  | 1.055482  | H | 2.035994  | 0.669569  | 2.329172  |
| <b>Ac-(Ala)4-Phe-(Ala)4-NHMe C5</b> |           |           |           | C | 0.675825  | -0.908468 | 2.923436  |
| C                                   | 17.966465 | -1.309244 | 0.462844  | H | 0.016729  | -0.264675 | 3.516693  |
| H                                   | 17.730017 | -1.968379 | -0.378164 | H | 0.076355  | -1.699605 | 2.459342  |
| H                                   | 18.324626 | -1.914117 | 1.301722  | H | 1.404406  | -1.371832 | 3.594238  |
| H                                   | 18.782779 | -0.640474 | 0.172244  | C | 2.414422  | -0.989340 | 1.099335  |
| C                                   | 16.786559 | -0.469482 | 0.932703  | O | 3.561486  | -1.127223 | 1.527994  |
| O                                   | 16.880478 | 0.313683  | 1.874527  | N | 1.960927  | -1.604880 | -0.017541 |
| N                                   | 15.630975 | -0.641327 | 0.234563  | H | 0.972355  | -1.559214 | -0.244845 |
| H                                   | 15.532938 | -1.346145 | -0.487526 | C | 2.813732  | -2.489192 | -0.803785 |
| C                                   | 14.397767 | 0.028190  | 0.599956  | H | 3.203880  | -3.286445 | -0.161423 |
| H                                   | 14.304292 | 0.012666  | 1.693260  | C | 2.006229  | -3.097616 | -1.956622 |
| C                                   | 14.373987 | 1.496333  | 0.131520  | H | 1.167304  | -3.684200 | -1.566981 |
| H                                   | 15.222987 | 2.020662  | 0.576819  | H | 1.609448  | -2.310504 | -2.607419 |
| H                                   | 14.451183 | 1.551486  | -0.959580 | H | 2.653927  | -3.752539 | -2.545249 |
| H                                   | 13.451476 | 1.999508  | 0.441879  | C | 4.075075  | -1.795493 | -1.355038 |
| C                                   | 13.250920 | -0.782133 | -0.027902 | O | 5.062817  | -2.482363 | -1.633517 |
| O                                   | 13.460231 | -1.626895 | -0.901341 | N | 4.025026  | -0.456815 | -1.540463 |
| N                                   | 12.014174 | -0.487460 | 0.431668  | H | 3.212893  | 0.070630  | -1.231258 |
| H                                   | 11.851433 | 0.250560  | 1.110096  | C | 5.178306  | 0.286051  | -2.037663 |
| C                                   | 10.805484 | -1.063939 | -0.130377 | H | 5.598849  | -0.277707 | -2.876752 |
| H                                   | 10.904648 | -1.087259 | -1.222625 | C | 4.752545  | 1.676967  | -2.517463 |
| C                                   | 10.560689 | -2.499626 | 0.372129  | H | 4.055090  | 1.595926  | -3.357844 |
| H                                   | 11.418732 | -3.121257 | 0.104795  | H | 4.258843  | 2.235341  | -1.715209 |
| H                                   | 10.438680 | -2.508396 | 1.460315  | H | 5.640222  | 2.226342  | -2.839443 |
| H                                   | 9.662720  | -2.931732 | -0.082883 | C | 6.355108  | 0.393267  | -1.038543 |

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|  |            |           |           |   |           |           |           |
|--|------------|-----------|-----------|---|-----------|-----------|-----------|
| C  | -10.592854 | -1.202296 | 0.052366  | C | 9.652507  | -0.123153 | 0.264713  |
| H  | -10.660243 | -1.293606 | -1.038693 | O | 9.800221  | 0.742281  | 1.130217  |
| C  | -10.617489 | -2.614244 | 0.667800  | N | 8.486286  | -0.330554 | -0.383673 |
| H  | -9.756092  | -3.177904 | 0.301287  | H | 8.364214  | -1.087337 | -1.050334 |
| H  | -10.568602 | -2.557226 | 1.760197  | C | 7.260562  | 0.373885  | -0.047279 |
| H  | -11.529063 | -3.152895 | 0.387269  | H | 7.192970  | 0.452529  | 1.044589  |
| C  | -11.755031 | -0.336114 | 0.571238  | C | 7.224280  | 1.792339  | -0.646686 |
| O  | -11.557449 | 0.602259  | 1.346280  | H | 8.080012  | 2.359811  | -0.272445 |
| N  | -12.982951 | -0.689592 | 0.135148  | H | 7.275582  | 1.747930  | -1.739581 |
| H  | -13.135540 | -1.494929 | -0.464927 | H | 6.306916  | 2.318944  | -0.361893 |
| C  | -14.200101 | -0.052641 | 0.607436  | C | 6.105599  | -0.495910 | -0.577053 |
| H  | -14.109097 | 0.107163  | 1.689077  | O | 6.310546  | -1.409344 | -1.379666 |
| C  | -14.442297 | 1.306766  | -0.075723 | N | 4.879149  | -0.173060 | -0.115917 |
| H  | -13.590515 | 1.962301  | 0.121357  | H | 4.724230  | 0.613880  | 0.507911  |
| H  | -14.551971 | 1.177020  | -1.157197 | C | 3.660975  | -0.815000 | -0.580801 |
| H  | -15.347344 | 1.789308  | 0.309469  | H | 3.711845  | -0.914558 | -1.672173 |
| C  | -15.343513 | -1.042954 | 0.317431  | C | 3.472076  | -2.214136 | 0.034925  |
| O  | -15.186851 | -1.980989 | -0.461369 | H | 4.332496  | -2.836569 | -0.222325 |
| N  | -16.510531 | -0.781158 | 0.958557  | H | 3.393475  | -2.144882 | 1.124859  |
| H  | -16.542740 | -0.002180 | 1.601223  | H | 2.566953  | -2.695823 | -0.349884 |
| C  | -17.714270 | -1.576345 | 0.771513  | C | 2.507339  | 0.131647  | -0.200534 |
| H  | -18.039047 | -2.022513 | 1.717979  | O | 2.682114  | 1.068698  | 0.582993  |
| H  | -18.529557 | -0.966164 | 0.366814  | N | 1.312102  | -0.152934 | -0.757567 |
| H  | -17.476410 | -2.371407 | 0.064304  | H | 1.177239  | -0.932338 | -1.394720 |
| C  | -1.052600  | 2.865606  | -0.718420 | C | 0.098631  | 0.578075  | -0.433831 |
| C  | -2.204869  | 3.106425  | -1.477096 | H | 0.096699  | 0.789599  | 0.640391  |
| C  | -0.921282  | 3.507915  | 0.522684  | C | 0.033114  | 1.931101  | -1.204426 |
| C  | -3.202185  | 3.964645  | -1.010481 | H | 1.012769  | 2.401312  | -1.069260 |
| H  | -2.318626  | 2.620210  | -2.443555 | H | -0.085944 | 1.716003  | -2.272501 |
| C  | -1.918689  | 4.361311  | 0.993973  | C | -1.065917 | -0.356416 | -0.804626 |
| H  | -0.023616  | 3.343271  | 1.115496  | O | -0.911542 | -1.236095 | -1.657167 |
| C  | -3.063095  | 4.592264  | 0.227838  | N | -2.228248 | -0.142799 | -0.157590 |
| H  | -4.086655  | 4.143490  | -1.616491 | H | -2.350185 | 0.629340  | 0.492610  |
| H  | -1.799469  | 4.850888  | 1.956874  | C | -3.446559 | -0.874005 | -0.470344 |
| H  | -3.839428  | 5.258862  | 0.593343  | H | -3.543197 | -0.945302 | -1.560518 |
| <u>Ac-(Ala)4-Phe-(Ala)4-NHMe C7<sub>eq</sub></u> |            |           |           | C | -3.432840 | -2.297382 | 0.118631  |
| C  | 14.338472  | -1.732202 | -0.091212 | H | -2.576444 | -2.844056 | -0.283417 |
| H  | 14.686287  | -1.820262 | -1.124731 | H | -3.353043 | -2.257434 | 1.209904  |
| H  | 14.131127  | -2.730510 | 0.304839  | H | -4.347370 | -2.839683 | -0.144846 |
| H  | 15.140360  | -1.301072 | 0.516608  | C | -4.607599 | -0.044962 | 0.105813  |
| C  | 13.097655  | -0.873463 | 0.064386  | O | -4.411193 | 0.821619  | 0.958584  |
| O  | 12.546681  | -0.723253 | 1.158063  | N | -5.833127 | -0.354288 | -0.370845 |
| N  | 12.634337  | -0.270967 | -1.065212 | H | -5.984677 | -1.108926 | -1.033786 |
| H  | 13.082155  | -0.461741 | -1.950993 | C | -7.051575 | 0.245369  | 0.145756  |
| C  | 11.519348  | 0.682495  | -1.058384 | H | -6.974875 | 0.304880  | 1.238236  |
| H  | 11.595459  | 1.232917  | -0.113655 | C | -7.277409 | 1.663766  | -0.411387 |
| C  | 11.633957  | 1.639009  | -2.240657 | H | -6.417615 | 2.287975  | -0.155218 |
| H  | 12.595067  | 2.161885  | -2.213201 | H | -7.385816 | 1.633451  | -1.500673 |
| H  | 11.535872  | 1.102248  | -3.189426 | H | -8.177866 | 2.118145  | 0.015961  |
| H  | 10.831192  | 2.379573  | -2.206222 | C | -8.198437 | -0.704813 | -0.244087 |
| C  | 10.158530  | -0.055932 | -1.060880 | O | -8.036032 | -1.589629 | -1.087133 |
| O  | 9.405404   | -0.034512 | -2.040321 | N | -9.373693 | -0.483070 | 0.381902  |
| N  | 9.872958   | -0.706410 | 0.090220  | H | -9.504059 | 0.286257  | 1.032504  |

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|   |            |           |           |   |           |           |           |
|---|------------|-----------|-----------|---|-----------|-----------|-----------|
| H   | -4.504165  | 2.656240  | 0.521252  | H | 10.599013 | -0.716965 | 0.808698  |
| H   | -5.262414  | 2.375503  | -1.069612 | C | 8.733234  | -1.621751 | 0.223559  |
| H   | -6.267764  | 2.791106  | 0.316144  | H | 8.597256  | -2.107433 | -0.751434 |
| C   | -6.772461  | 0.151924  | -0.348079 | C | 9.023414  | -2.664367 | 1.298523  |
| O   | -7.412038  | 0.771721  | -1.204239 | H | 9.938025  | -3.213807 | 1.054997  |
| N   | -7.097462  | -1.094246 | 0.067932  | H | 9.138270  | -2.191974 | 2.278269  |
| H   | -6.477220  | -1.535730 | 0.748643  | H | 8.194594  | -3.372487 | 1.371945  |
| C   | -8.122055  | -1.907008 | -0.595283 | C | 7.427694  | -0.847926 | 0.531321  |
| H   | -8.099266  | -1.639124 | -1.659273 | O | 6.824976  | -0.979489 | 1.601755  |
| C   | -7.811718  | -3.389975 | -0.417613 | N | 7.000605  | -0.043345 | -0.469518 |
| H   | -6.816205  | -3.617141 | -0.811901 | H | 7.591356  | 0.025699  | -1.299819 |
| H   | -7.854096  | -3.672784 | 0.638189  | C | 5.892063  | 0.902868  | -0.305208 |
| H   | -8.549912  | -3.996609 | -0.947943 | H | 5.921564  | 1.250201  | 0.735437  |
| C   | -9.538454  | -1.564942 | -0.070032 | C | 6.060593  | 2.079897  | -1.260715 |
| O   | -10.215993 | -2.382696 | 0.562352  | H | 7.020992  | 2.574149  | -1.084186 |
| N   | -9.962785  | -0.318518 | -0.376981 | H | 6.013004  | 1.746776  | -2.301467 |
| H   | -9.312582  | 0.287008  | -0.879232 | H | 5.257634  | 2.806234  | -1.112950 |
| C   | -11.207111 | 0.253307  | 0.151141  | C | 4.527249  | 0.202755  | -0.514156 |
| H   | -11.346881 | -0.171241 | 1.152792  | O | 3.788778  | 0.478036  | -1.466273 |
| C   | -11.092732 | 1.771904  | 0.229470  | N | 4.212747  | -0.710116 | 0.434017  |
| H   | -10.234784 | 2.058416  | 0.846391  | H | 4.917524  | -0.899694 | 1.149004  |
| H   | -10.980636 | 2.203530  | -0.769365 | C | 3.064010  | -1.614704 | 0.314596  |
| H   | -12.001007 | 2.195290  | 0.665713  | H | 2.945821  | -1.842606 | -0.752659 |
| C   | -12.425933 | -0.168947 | -0.712880 | C | 3.322843  | -2.894995 | 1.102759  |
| O   | -13.046671 | 0.634190  | -1.402067 | H | 4.237179  | -3.378552 | 0.745181  |
| N   | -12.732642 | -1.489943 | -0.605953 | H | 3.423311  | -2.681236 | 2.170759  |
| H   | -12.087062 | -2.072188 | -0.075714 | H | 2.486628  | -3.588416 | 0.985011  |
| C   | -13.784358 | -2.107722 | -1.390407 | C | 1.757192  | -0.925979 | 0.777987  |
| H   | -13.376630 | -2.763050 | -2.171595 | O | 1.127796  | -1.309215 | 1.769328  |
| H   | -14.447499 | -2.700847 | -0.750236 | N | 1.361808  | 0.108133  | -0.001902 |
| H   | -14.359298 | -1.310739 | -1.864570 | H | 1.970697  | 0.369493  | -0.779930 |
| C   | -0.411293  | 3.453556  | 0.408495  | C | 0.245528  | 0.984386  | 0.365691  |
| C   | -1.592123  | 3.896878  | -0.200378 | H | 0.230083  | 1.044293  | 1.460120  |
| C   | -0.035931  | 4.021273  | 1.634442  | C | 0.452964  | 2.386146  | -0.233859 |
| C   | -2.375223  | 4.885475  | 0.399522  | H | 1.510442  | 2.643858  | -0.099901 |
| H   | -1.897110  | 3.454602  | -1.143789 | H | 0.257519  | 2.337505  | -1.309497 |
| C   | -0.819125  | 5.004339  | 2.239625  | C | -1.086608 | 0.344185  | -0.093980 |
| H   | 0.883884   | 3.694836  | 2.116388  | O | -1.721701 | 0.755702  | -1.071144 |
| C   | -1.992558  | 5.440891  | 1.621795  | N | -1.473084 | -0.717640 | 0.652088  |
| H   | -3.283669  | 5.224080  | -0.091944 | H | -0.811415 | -1.043813 | 1.358076  |
| H   | -0.509558  | 5.433770  | 3.188930  | C | -2.535651 | -1.636055 | 0.225123  |
| H   | -2.601648  | 6.211044  | 2.087501  | H | -2.509253 | -1.670094 | -0.872056 |
| H   | -2.601648  | 6.211044  | 2.087501  | C | -2.285883 | -3.025869 | 0.802764  |
| <u>Ac-(Ala)<sub>4</sub>-Asn-(Ala)<sub>4</sub>-NHMe αR</u> |            |           |           | H | -1.298643 | -3.388484 | 0.499865  |
| C   | -8.923612  | -2.144836 | 0.133455  | H | -2.342623 | -3.008718 | 1.894857  |
| H   | -9.807127  | -1.508162 | 0.236414  | H | -3.045595 | -3.725847 | 0.446725  |
| H   | -8.737951  | -2.663679 | 1.077264  | C | -3.934686 | -1.109207 | 0.626200  |
| H   | -9.128768  | -2.909259 | -0.624300 | O | -4.648858 | -1.706388 | 1.439172  |
| C   | -7.675473  | -1.385325 | -0.267130 | N | -4.312420 | 0.026255  | -0.004133 |
| O   | -6.550707  | -1.881392 | -0.193297 | H | -3.632479 | 0.464456  | -0.627214 |
| N   | -7.854494  | -0.101920 | -0.712408 | C | -5.531944 | 0.760132  | 0.351888  |
| H   | -8.799049  | 0.215011  | -0.891571 | H | -5.674519 | 0.632678  | 1.432398  |
| C   | -6.768964  | 0.613723  | -1.388025 | C | -5.376199 | 2.238055  | 0.009920  |

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|                                     |           |           |           |   |           |           |           |
|-------------------------------------|-----------|-----------|-----------|---|-----------|-----------|-----------|
| H                                   | 1.626551  | -1.210343 | 3.879257  | H | -6.392297 | 0.004850  | -2.217415 |
| C                                   | 2.540826  | -0.810861 | 1.339267  | C | -7.271276 | 1.958987  | -1.925158 |
| O                                   | 3.730314  | -0.745191 | 1.652399  | H | -8.070764 | 1.808343  | -2.659054 |
| N                                   | 2.086809  | -1.609053 | 0.341916  | H | -7.649116 | 2.594687  | -1.116827 |
| H                                   | 1.090440  | -1.682097 | 0.160524  | H | -6.451119 | 2.484559  | -2.420580 |
| C                                   | 3.001029  | -2.452452 | -0.421718 | C | -5.548245 | 0.825049  | -0.480411 |
| H                                   | 3.577396  | -3.076548 | 0.269231  | O | -4.419741 | 0.892089  | -0.976042 |
| C                                   | 2.215126  | -3.336618 | -1.396059 | N | -5.777509 | 0.960021  | 0.844411  |
| H                                   | 1.511924  | -3.977933 | -0.854225 | H | -6.727501 | 0.870991  | 1.180606  |
| H                                   | 1.652780  | -2.718174 | -2.103796 | C | -4.689424 | 1.159138  | 1.798041  |
| H                                   | 2.911676  | -3.967915 | -1.954432 | H | -4.137697 | 2.061591  | 1.518796  |
| C                                   | 4.067624  | -1.641864 | -1.184940 | C | -5.248073 | 1.322415  | 3.215041  |
| O                                   | 5.166230  | -2.147208 | -1.427382 | H | -5.911296 | 2.192177  | 3.271269  |
| N                                   | 3.717121  | -0.394671 | -1.573538 | H | -5.801938 | 0.429997  | 3.529168  |
| H                                   | 2.778111  | -0.064515 | -1.380587 | H | -4.422828 | 1.476387  | 3.914495  |
| C                                   | 4.631223  | 0.486107  | -2.291198 | C | -3.642248 | 0.028069  | 1.757448  |
| H                                   | 5.093070  | -0.087401 | -3.102371 | O | -2.474104 | 0.285922  | 2.053593  |
| C                                   | 3.861881  | 1.675117  | -2.874129 | N | -4.067498 | -1.220422 | 1.445246  |
| H                                   | 3.109456  | 1.332844  | -3.592769 | H | -5.006850 | -1.367101 | 1.083382  |
| H                                   | 3.353630  | 2.232271  | -2.078978 | C | -3.109264 | -2.322735 | 1.358239  |
| H                                   | 4.565172  | 2.341127  | -3.378987 | H | -2.493817 | -2.309075 | 2.260896  |
| C                                   | 5.834559  | 0.985624  | -1.456617 | C | -3.843802 | -3.663147 | 1.246637  |
| O                                   | 6.746552  | 1.571273  | -2.034935 | H | -4.447513 | -3.841293 | 2.142559  |
| N                                   | 5.810289  | 0.736878  | -0.122089 | H | -4.504146 | -3.684683 | 0.373783  |
| H                                   | 5.007714  | 0.274309  | 0.295415  | H | -3.115156 | -4.473458 | 1.155135  |
| C                                   | 6.941769  | 1.023204  | 0.748384  | C | -2.103846 | -2.140364 | 0.201453  |
| H                                   | 7.594085  | 1.698346  | 0.185544  | O | -0.925912 | -2.470090 | 0.344121  |
| C                                   | 6.485326  | 1.701113  | 2.045066  | N | -2.599308 | -1.648823 | -0.963281 |
| H                                   | 6.048336  | 2.681430  | 1.828837  | H | -3.532600 | -1.254452 | -0.971308 |
| H                                   | 5.729918  | 1.090329  | 2.552805  | C | -1.714059 | -1.330629 | -2.081764 |
| H                                   | 7.343025  | 1.821082  | 2.710478  | H | -1.072129 | -2.195647 | -2.262976 |
| C                                   | 7.805098  | -0.220395 | 1.072058  | C | -2.534180 | -1.014241 | -3.336955 |
| O                                   | 8.718853  | -0.138861 | 1.892841  | H | -3.131013 | -1.884080 | -3.631355 |
| N                                   | 7.512419  | -1.359935 | 0.403172  | H | -3.206589 | -0.167153 | -3.163198 |
| H                                   | 6.749724  | -1.389311 | -0.264765 | H | -1.862214 | -0.761171 | -4.161903 |
| C                                   | 8.282581  | -2.569207 | 0.619000  | C | -0.740332 | -0.181107 | -1.744842 |
| H                                   | 8.417210  | -2.745359 | 1.690750  | O | 0.428476  | -0.213995 | -2.125395 |
| H                                   | 7.742269  | -3.407745 | 0.173295  | N | -1.254418 | 0.847413  | -1.021619 |
| H                                   | 9.279255  | -2.503147 | 0.163520  | H | -2.240699 | 0.857596  | -0.784051 |
| C                                   | -0.746767 | 4.466793  | 0.217419  | C | -0.412870 | 1.965899  | -0.609982 |
| O                                   | -1.527987 | 5.374737  | 0.477981  | H | 0.085266  | 2.375680  | -1.494268 |
| N                                   | 0.588322  | 4.651370  | 0.052099  | C | -1.297260 | 3.041805  | 0.050851  |
| H                                   | 0.940276  | 5.581306  | 0.236363  | H | -2.207703 | 3.160309  | -0.547014 |
| H                                   | 1.251607  | 3.879426  | 0.004746  | H | -1.619026 | 2.695415  | 1.041087  |
| <b>Ac-(Ala)4-Asn-(Ala)4-NHMe C5</b> |           |           |           | C | 0.736222  | 1.500324  | 0.310835  |
| C                                   | 17.670116 | -1.352769 | -1.340535 | O | 1.855852  | 2.017483  | 0.215657  |
| H                                   | 17.266870 | -2.222168 | -1.868898 | N | 0.449337  | 0.543335  | 1.218397  |
| H                                   | 18.231284 | -1.695482 | -0.465359 | H | -0.505191 | 0.209573  | 1.316676  |
| H                                   | 18.375619 | -0.832907 | -1.996043 | C | 1.483061  | 0.012118  | 2.104416  |
| C                                   | 16.604373 | -0.365713 | -0.884650 | H | 2.042776  | 0.848293  | 2.531877  |
| O                                   | 16.890355 | 0.674333  | -0.296759 | C | 0.845386  | -0.827848 | 3.216206  |
| N                                   | 15.321323 | -0.712522 | -1.178614 | H | 0.150506  | -0.220889 | 3.805741  |
| H                                   | 15.081803 | -1.611757 | -1.581061 | H | 0.297710  | -1.677977 | 2.795037  |

|  |            |           |           |   |           |           |           |
|--|------------|-----------|-----------|---|-----------|-----------|-----------|
| H  | -3.986631  | -0.447579 | 3.218322  | C | 14.186653 | 0.076537  | -0.740061 |
| H  | -4.768329  | -1.786612 | 2.347409  | H | 14.374355 | 0.415204  | 0.286830  |
| C  | -4.842604  | 0.523988  | 0.767809  | C | 13.966616 | 1.317362  | -1.627411 |
| O  | -4.796638  | 1.727425  | 1.013095  | H | 14.872991 | 1.927469  | -1.608406 |
| N  | -5.935758  | -0.089845 | 0.253208  | H | 13.758363 | 1.017911  | -2.660134 |
| H  | -5.977237  | -1.094652 | 0.111819  | H | 13.130025 | 1.925445  | -1.265194 |
| C  | -7.199274  | 0.598523  | 0.056880  | C | 12.963871 | -0.856671 | -0.759305 |
| H  | -7.373960  | 1.257940  | 0.916018  | O | 12.995700 | -1.951580 | -1.325325 |
| C  | -7.199518  | 1.453115  | -1.224902 | N | 11.863721 | -0.383710 | -0.131612 |
| H  | -6.392820  | 2.187520  | -1.160929 | H | 11.832436 | 0.546242  | 0.275100  |
| H  | -7.040102  | 0.822270  | -2.105707 | C | 10.586326 | -1.074469 | -0.155132 |
| H  | -8.148130  | 1.987639  | -1.345614 | H | 10.430073 | -1.482207 | -1.161340 |
| C  | -8.285948  | -0.490723 | 0.011073  | C | 10.536879 | -2.233999 | 0.857925  |
| O  | -7.995989  | -1.680459 | -0.130624 | H | 11.337058 | -2.941634 | 0.627129  |
| N  | -9.557181  | -0.046294 | 0.117126  | H | 10.675492 | -1.858426 | 1.877128  |
| H  | -9.781029  | 0.942593  | 0.177181  | H | 9.579258  | -2.763689 | 0.808485  |
| C  | -10.711797 | -0.916530 | -0.026705 | C | 9.512760  | -0.012797 | 0.144534  |
| H  | -10.526509 | -1.606760 | -0.858933 | O | 9.814563  | 1.092589  | 0.599562  |
| C  | -10.978813 | -1.741064 | 1.247033  | N | 8.240381  | -0.386686 | -0.110398 |
| H  | -10.096091 | -2.344572 | 1.472020  | H | 8.003248  | -1.322356 | -0.427532 |
| H  | -11.184908 | -1.079812 | 2.095113  | C | 7.093206  | 0.444196  | 0.212874  |
| H  | -11.833472 | -2.413032 | 1.112971  | H | 7.250567  | 0.887724  | 1.203778  |
| C  | -11.900843 | -0.001273 | -0.369841 | C | 6.895290  | 1.578915  | -0.809689 |
| O  | -11.828170 | 1.221948  | -0.234106 | H | 7.796670  | 2.196080  | -0.836801 |
| N  | -13.013687 | -0.631550 | -0.804009 | H | 6.713946  | 1.167157  | -1.808044 |
| H  | -13.076884 | -1.643521 | -0.862552 | H | 6.046940  | 2.215400  | -0.535702 |
| C  | -14.260051 | 0.066895  | -1.066095 | C | 5.876665  | -0.499663 | 0.256643  |
| H  | -14.406270 | 0.817671  | -0.279531 | O | 5.944875  | -1.650702 | -0.179800 |
| C  | -14.245638 | 0.778431  | -2.432515 | N | 4.751487  | 0.029820  | 0.781220  |
| H  | -13.417342 | 1.490869  | -2.454621 | H | 4.697524  | 0.999182  | 1.080524  |
| H  | -14.114805 | 0.051741  | -3.240750 | C | 3.477733  | -0.670275 | 0.793953  |
| H  | -15.178642 | 1.326123  | -2.605765 | H | 3.360250  | -1.196076 | -0.161152 |
| C  | -15.373314 | -0.994432 | -0.993178 | C | 3.391970  | -1.698068 | 1.937653  |
| O  | -15.110521 | -2.193950 | -1.047836 | H | 4.199333  | -2.426235 | 1.825931  |
| N  | -16.634361 | -0.502183 | -0.894625 | H | 3.491787  | -1.200812 | 2.908080  |
| H  | -16.756525 | 0.498175  | -0.822844 | H | 2.436507  | -2.233014 | 1.916943  |
| C  | -17.815523 | -1.350439 | -0.858001 | C | 2.392721  | 0.414721  | 0.925711  |
| H  | -18.348820 | -1.241309 | 0.093081  | O | 2.682226  | 1.570260  | 1.250692  |
| H  | -18.498186 | -1.106158 | -1.679367 | N | 1.133080  | 0.008791  | 0.670257  |
| H  | -17.481029 | -2.382830 | -0.963128 | H | 0.901370  | -0.962194 | 0.469432  |
| C  | -0.857956  | 3.215912  | 0.414196  | C | -0.036081 | 0.841909  | 0.898300  |
| O  | -1.641581  | 3.153768  | 1.358342  | H | 0.018520  | 1.286198  | 1.898813  |
| N  | -0.613238  | 4.384104  | -0.239393 | C | -0.115908 | 1.998267  | -0.129181 |
| H  | -1.045780  | 5.223976  | 0.120759  | H | 0.906562  | 2.289298  | -0.386322 |
| H  | 0.146516   | 4.481507  | -0.896003 | H | -0.604363 | 1.665177  | -1.053818 |
| <u>Ac-(Ala)<sub>4</sub>-Asn-(Ala)<sub>4</sub>-NHMe C7<sub>eq</sub></u> |            |           |           | C | -1.243859 | -0.128224 | 0.846157  |
| C  | 14.278806  | -1.129442 | 0.782319  | O | -1.063624 | -1.323355 | 0.582904  |
| H  | 14.791358  | -0.823528 | -0.134496 | N | -2.450710 | 0.407177  | 1.093366  |
| H  | 14.111162  | -2.210207 | 0.756861  | H | -2.539985 | 1.402812  | 1.313362  |
| H  | 14.928382  | -0.921117 | 1.638261  | C | -3.657094 | -0.406168 | 1.064706  |
| C  | 12.950655  | -0.429576 | 1.001128  | H | -3.545424 | -1.141356 | 0.260404  |
| O  | 12.235183  | -0.685824 | 1.972904  | C | -3.872322 | -1.158005 | 2.393038  |
| N  | 12.598769  | 0.500741  | 0.071379  | H | -3.008850 | -1.799030 | 2.590368  |

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|       |            |           |           |   |           |           |           |
|-------|------------|-----------|-----------|---|-----------|-----------|-----------|
| H     | -1.622841  | -3.473012 | -1.658164 | H | 13.188125 | 0.643697  | -0.737164 |
| H     | -2.395389  | -3.570468 | -0.053228 | C | 11.405707 | 1.344475  | 0.201185  |
| H     | -3.380556  | -3.710116 | -1.507251 | H | 11.288916 | 1.544193  | 1.272476  |
| C     | -3.984871  | -1.285838 | -0.307693 | C | 11.596500 | 2.649535  | -0.564473 |
| O     | -4.627023  | -2.098352 | 0.365718  | H | 12.484766 | 3.175530  | -0.200900 |
| N     | -4.321348  | 0.020293  | -0.422133 | H | 11.695805 | 2.462302  | -1.638286 |
| H     | -3.703617  | 0.616661  | -0.972913 | H | 10.726665 | 3.297195  | -0.430182 |
| C     | -5.323535  | 0.658458  | 0.439914  | C | 10.139778 | 0.591341  | -0.274582 |
| H     | -5.280587  | 0.145849  | 1.409199  | O | 9.540420  | 0.908024  | -1.307825 |
| C     | -5.000032  | 2.139388  | 0.612778  | N | 9.753391  | -0.420494 | 0.535922  |
| H     | -3.988096  | 2.265963  | 1.010175  | H | 10.362289 | -0.641465 | 1.325726  |
| H     | -5.085157  | 2.664562  | -0.343845 | C | 8.696903  | -1.371014 | 0.169402  |
| H     | -5.714137  | 2.600745  | 1.299922  | H | 8.750558  | -1.505390 | -0.918571 |
| C     | -6.750361  | 0.450841  | -0.122543 | C | 8.921225  | -2.702496 | 0.879028  |
| O     | -7.437685  | 1.389990  | -0.537783 | H | 9.911716  | -3.098192 | 0.634175  |
| N     | -7.177789  | -0.833308 | -0.103702 | H | 8.838424  | -2.584721 | 1.963161  |
| H     | -6.514845  | -1.541229 | 0.216430  | H | 8.164968  | -3.428185 | 0.569878  |
| C     | -8.421289  | -1.262971 | -0.750896 | C | 7.296618  | -0.793256 | 0.489463  |
| H     | -8.558771  | -0.621190 | -1.630501 | O | 6.571931  | -1.277154 | 1.364819  |
| C     | -8.314357  | -2.724303 | -1.175286 | N | 6.936447  | 0.262888  | -0.277319 |
| H     | -7.458417  | -2.861392 | -1.843636 | H | 7.631946  | 0.622061  | -0.933288 |
| H     | -8.197904  | -3.375216 | -0.303874 | C | 5.738527  | 1.064519  | -0.006210 |
| H     | -9.224043  | -3.034530 | -1.695252 | H | 5.602702  | 1.079555  | 1.082716  |
| C     | -9.644155  | -1.035908 | 0.172708  | C | 5.925445  | 2.483163  | -0.534737 |
| O     | -10.316238 | -1.976505 | 0.610224  | H | 6.815648  | 2.937255  | -0.088581 |
| N     | -9.912374  | 0.262693  | 0.436200  | H | 6.028057  | 2.482755  | -1.623617 |
| H     | -9.279252  | 0.960712  | 0.043680  | H | 5.055717  | 3.096981  | -0.287385 |
| C     | -10.928877 | 0.687004  | 1.406276  | C | 4.478671  | 0.401433  | -0.614396 |
| H     | -10.947796 | -0.075044 | 2.194961  | O | 3.859689  | 0.911188  | -1.555888 |
| C     | -10.558845 | 2.046165  | 1.990113  | N | 4.113620  | -0.757639 | -0.020423 |
| H     | -9.565878  | 2.006189  | 2.449505  | H | 4.730670  | -1.119608 | 0.709116  |
| H     | -10.567783 | 2.816049  | 1.213171  | C | 3.062292  | -1.630658 | -0.554908 |
| H     | -11.289080 | 2.341341  | 2.747888  | H | 3.110166  | -1.558591 | -1.649136 |
| C     | -12.337839 | 0.725364  | 0.755763  | C | 3.299202  | -3.069559 | -0.108078 |
| O     | -12.936688 | 1.777524  | 0.556289  | H | 4.289394  | -3.406898 | -0.429809 |
| N     | -12.828861 | -0.507962 | 0.457771  | H | 3.225410  | -3.155582 | 0.979713  |
| H     | -12.198474 | -1.297990 | 0.582824  | H | 2.543200  | -3.729343 | -0.540950 |
| C     | -14.090635 | -0.693823 | -0.232350 | C | 1.659894  | -1.134685 | -0.124473 |
| H     | -13.941968 | -1.030708 | -1.266987 | O | 0.946407  | -1.774905 | 0.653049  |
| H     | -14.711383 | -1.432383 | 0.287792  | N | 1.286973  | 0.039590  | -0.687897 |
| H     | -14.608401 | 0.266538  | -0.246277 | H | 1.985273  | 0.514509  | -1.263231 |
| C     | -0.877559  | 3.067380  | 0.072106  | C | 0.099743  | 0.776523  | -0.252860 |
| O     | -1.366885  | 2.756235  | 1.150843  | H | -0.012013 | 0.647076  | 0.829193  |
| N     | -1.245533  | 4.194287  | -0.608752 | C | 0.262335  | 2.265225  | -0.556150 |
| H     | -2.071681  | 4.669025  | -0.267083 | H | 1.204954  | 2.616910  | -0.118699 |
| H     | -1.069603  | 4.258118  | -1.601483 | H | 0.312233  | 2.430143  | -1.636994 |
| <hr/> |            |           |           | C | -1.195949 | 0.244995  | -0.908246 |
| C     | -9.000955  | -2.099642 | -0.223804 | O | -1.875379 | 0.952295  | -1.665031 |
| H     | -9.879194  | -1.470812 | -0.051040 | N | -1.536116 | -1.012108 | -0.559496 |
| H     | -8.846631  | -2.752886 | 0.638753  | H | -0.905279 | -1.511428 | 0.070385  |
| H     | -9.194982  | -2.742904 | -1.089319 | C | -2.716398 | -1.694613 | -1.097566 |
| C     | -7.733668  | -1.309765 | -0.479385 | H | -2.842709 | -1.339553 | -2.127484 |
| O     | -6.618018  | -1.830591 | -0.460527 | C | -2.511423 | -3.205640 | -1.077961 |

|   |            |           |           |   |           |           |           |
|---|------------|-----------|-----------|---|-----------|-----------|-----------|
| C   | 0.773431   | -1.436779 | 3.147131  | N | -7.885290 | 0.029951  | -0.725651 |
| H   | 0.098910   | -0.897132 | 3.820072  | H | -8.821554 | 0.385715  | -0.872547 |
| H   | 0.193969   | -2.188385 | 2.599937  | C | -6.777303 | 0.821929  | -1.266390 |
| H   | 1.530024   | -1.950347 | 3.747307  | H | -6.390116 | 0.337164  | -2.169528 |
| C   | 2.484988   | -1.203975 | 1.295758  | C | -7.252691 | 2.238863  | -1.608381 |
| O   | 3.681678   | -1.197581 | 1.586757  | H | -8.037056 | 2.209638  | -2.372759 |
| N   | 1.996419   | -1.865494 | 0.217589  | H | -7.641884 | 2.752872  | -0.722592 |
| H   | 0.995977   | -1.897151 | 0.044320  | H | -6.415942 | 2.820015  | -2.003843 |
| C   | 2.882594   | -2.623138 | -0.660623 | C | -5.572863 | 0.879127  | -0.315836 |
| H   | 3.459752   | -3.336537 | -0.063282 | O | -4.434987 | 1.011280  | -0.774760 |
| C   | 2.063123   | -3.366195 | -1.721434 | N | -5.824635 | 0.810727  | 1.010747  |
| H   | 1.350517   | -4.050897 | -1.249963 | H | -6.779802 | 0.672403  | 1.313832  |
| H   | 1.507169   | -2.654853 | -2.341704 | C | -4.748613 | 0.842556  | 1.997786  |
| H   | 2.735854   | -3.941773 | -2.363204 | H | -4.182606 | 1.769901  | 1.869026  |
| C   | 3.949553   | -1.739401 | -1.337795 | C | -5.326678 | 0.789657  | 3.415472  |
| O   | 5.052113   | -2.211520 | -1.624164 | H | -5.982301 | 1.647718  | 3.598718  |
| N   | 3.589866   | -0.463114 | -1.607506 | H | -5.895044 | -0.133403 | 3.578720  |
| H   | 2.645260   | -0.160105 | -1.394481 | H | -4.510896 | 0.820474  | 4.141886  |
| C   | 4.495555   | 0.480689  | -2.251201 | C | -3.712047 | -0.280719 | 1.794087  |
| H   | 4.969323   | -0.025557 | -3.099652 | O | -2.545096 | -0.086994 | 2.139043  |
| C   | 3.715645   | 1.699808  | -2.751193 | N | -4.147173 | -1.459693 | 1.286985  |
| H   | 2.963263   | 1.402802  | -3.489070 | H | -5.082891 | -1.538400 | 0.895862  |
| H   | 3.204236   | 2.195925  | -1.918382 | C | -3.198877 | -2.545638 | 1.043055  |
| H   | 4.413429   | 2.404994  | -3.208148 | H | -2.597953 | -2.681100 | 1.945436  |
| C   | 5.687458   | 0.933013  | -1.374574 | C | -3.942589 | -3.844241 | 0.712588  |
| O   | 6.582770   | 1.593151  | -1.896377 | H | -4.561584 | -4.154422 | 1.560870  |
| N   | 5.673700   | 0.558907  | -0.069945 | H | -4.588900 | -3.722134 | -0.162371 |
| H   | 4.881880   | 0.043336  | 0.302601  | H | -3.218497 | -4.637140 | 0.505720  |
| C   | 6.799279   | 0.788711  | 0.824333  | C | -2.174754 | -2.198124 | -0.057758 |
| H   | 7.434056   | 1.530858  | 0.330085  | O | -1.010320 | -2.588946 | 0.035299  |
| C   | 6.327089   | 1.325880  | 2.180048  | N | -2.642074 | -1.500726 | -1.123982 |
| H   | 5.856451   | 2.306802  | 2.057989  | H | -3.559621 | -1.074256 | -1.066185 |
| H   | 5.595165   | 0.644228  | 2.628397  | C | -1.740452 | -1.039360 | -2.177708 |
| H   | 7.183549   | 1.411279  | 2.852452  | H | -1.120180 | -1.885013 | -2.483027 |
| C   | 7.691757   | -0.459166 | 1.028478  | C | -2.540883 | -0.518681 | -3.376011 |
| O   | 8.613278   | -0.430249 | 1.844061  | H | -3.153225 | -1.320777 | -3.801710 |
| N   | 7.413971   | -1.542993 | 0.267138  | H | -3.197088 | 0.307642  | -3.082367 |
| H   | 6.640452   | -1.533453 | -0.388707 | H | -1.855207 | -0.160259 | -4.149015 |
| C   | 8.207072   | -2.751727 | 0.378199  | C | -0.736821 | 0.016853  | -1.669804 |
| H   | 8.313127   | -3.043577 | 1.428115  | O | 0.432488  | 0.001555  | -2.052578 |
| H   | 7.702453   | -3.547717 | -0.174235 | N | -1.216175 | 0.940432  | -0.798126 |
| H   | 9.215273   | -2.612903 | -0.032508 | H | -2.201854 | 0.950641  | -0.558910 |
| C   | -0.302028  | 4.082606  | 1.228661  | C | -0.330620 | 1.945399  | -0.221442 |
| H   | 0.454979   | 3.663138  | 1.898842  | H | 0.190554  | 2.460480  | -1.033233 |
| H   | -0.960943  | 4.723019  | 1.822148  | C | -1.149193 | 2.958697  | 0.602236  |
| C   | 0.339286   | 4.979665  | 0.164652  | H | -1.902591 | 3.408207  | -0.056426 |
| O   | -0.292022  | 5.880081  | -0.376936 | H | -1.677951 | 2.418540  | 1.397863  |
| N   | 1.640564   | 4.689768  | -0.120290 | C | 0.791405  | 1.304758  | 0.621488  |
| H   | 2.064114   | 5.183253  | -0.895209 | O | 1.933779  | 1.777219  | 0.609230  |
| H   | 2.041708   | 3.797330  | 0.160742  | N | 0.453868  | 0.240219  | 1.384271  |
| <b>Ac-(Ala)<sub>4</sub>-Gln-(Ala)<sub>4</sub>-NHMe C5</b> |            |           |           | H | -0.512562 | -0.069771 | 1.421930  |
| C   | -17.854858 | -0.824268 | 0.357975  | C | 1.456579  | -0.464953 | 2.179231  |
| H   | -17.576694 | -1.099712 | 1.379940  | H | 2.048338  | 0.269905  | 2.731604  |

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|   |           |           |           |   |            |           |           |
|---|-----------|-----------|-----------|---|------------|-----------|-----------|
| N | 2.421961  | -0.353040 | -0.255136 | H | -18.313637 | -1.687933 | -0.133357 |
| H | 2.551247  | 0.106830  | -1.152639 | H | -18.610058 | -0.032819 | 0.396152  |
| C | 3.649895  | -0.862851 | 0.334486  | C | -16.682711 | -0.344614 | -0.486993 |
| H | 3.698937  | -0.533981 | 1.379429  | O | -16.820372 | -0.016213 | -1.662723 |
| C | 3.718774  | -2.400872 | 0.293605  | N | -15.481602 | -0.296502 | 0.151513  |
| H | 2.866312  | -2.813792 | 0.838568  | H | -15.353897 | -0.646232 | 1.094458  |
| H | 3.688368  | -2.756450 | -0.741511 | C | -14.256207 | 0.071205  | -0.530872 |
| H | 4.640353  | -2.764608 | 0.760570  | H | -14.255892 | -0.399136 | -1.522344 |
| C | 4.800171  | -0.229163 | -0.470080 | C | -14.131702 | 1.596128  | -0.717009 |
| O | 4.598230  | 0.270280  | -1.578695 | H | -14.991158 | 1.950934  | -1.290987 |
| N | 6.015836  | -0.286306 | 0.111539  | H | -14.117420 | 2.100628  | 0.254999  |
| H | 6.169154  | -0.739179 | 1.008065  | H | -13.216936 | 1.858932  | -1.259824 |
| C | 7.230971  | 0.166986  | -0.545235 | C | -13.095629 | -0.491122 | 0.307366  |
| H | 7.212702  | -0.173963 | -1.587479 | O | -13.266178 | -0.890044 | 1.461498  |
| C | 7.360072  | 1.701950  | -0.528469 | N | -11.889603 | -0.496469 | -0.303680 |
| H | 6.493058  | 2.140092  | -1.028723 | H | -11.754008 | -0.113962 | -1.234604 |
| H | 7.402027  | 2.071111  | 0.501494  | C | -10.663953 | -0.880031 | 0.374594  |
| H | 8.265040  | 2.027339  | -1.052785 | H | -10.678784 | -0.457016 | 1.386553  |
| C | 8.396426  | -0.506279 | 0.202486  | C | -10.516224 | -2.409634 | 0.483107  |
| O | 8.226949  | -1.036409 | 1.302793  | H | -11.372172 | -2.811678 | 1.030739  |
| N | 9.593469  | -0.451560 | -0.418511 | H | -10.485085 | -2.862825 | -0.513262 |
| H | 9.724208  | 0.035155  | -1.300628 | H | -9.600450  | -2.682344 | 1.018866  |
| C | 10.824544 | -0.922809 | 0.193906  | C | -9.509288  | -0.256842 | -0.430454 |
| H | 10.829009 | -0.617376 | 1.247268  | O | -9.686562  | 0.183213  | -1.568247 |
| C | 10.957346 | -2.455837 | 0.123252  | N | -8.309024  | -0.249420 | 0.188493  |
| H | 10.103820 | -2.911608 | 0.631069  | H | -8.169537  | -0.663356 | 1.105646  |
| H | 10.973617 | -2.791066 | -0.918988 | C | -7.086273  | 0.188989  | -0.462973 |
| H | 11.875525 | -2.796362 | 0.613874  | H | -7.076236  | -0.203742 | -1.487048 |
| C | 11.971349 | -0.220785 | -0.555581 | C | -6.979562  | 1.724477  | -0.522894 |
| O | 11.777942 | 0.345491  | -1.633535 | H | -7.838917  | 2.120921  | -1.069167 |
| N | 13.182499 | -0.290829 | 0.036987  | H | -6.972472  | 2.147354  | 0.487203  |
| H | 13.336100 | -0.802205 | 0.901172  | H | -6.065338  | 2.037465  | -1.038643 |
| C | 14.393431 | 0.216496  | -0.584834 | C | -5.926462  | -0.427823 | 0.340374  |
| H | 14.370435 | -0.045246 | -1.650099 | O | -6.110533  | -0.909928 | 1.460391  |
| C | 14.511885 | 1.746927  | -0.453448 | N | -4.717508  | -0.380294 | -0.257498 |
| H | 13.639004 | 2.213529  | -0.916489 | H | -4.575214  | 0.065592  | -1.159358 |
| H | 14.556552 | 2.038170  | 0.600907  | C | -3.492387  | -0.808731 | 0.396649  |
| H | 15.411279 | 2.120777  | -0.955239 | H | -3.516181  | -0.467312 | 1.438566  |
| C | 15.565862 | -0.503176 | 0.107664  | C | -3.333433  | -2.340760 | 0.382585  |
| O | 15.404924 | -1.098505 | 1.171056  | H | -4.189494  | -2.793867 | 0.888752  |
| N | 16.761317 | -0.401584 | -0.526381 | H | -3.289839  | -2.711326 | -0.646805 |
| H | 16.796938 | 0.081843  | -1.412881 | H | -2.419706  | -2.648051 | 0.902695  |
| C | 17.989834 | -0.975144 | 0.000967  | C | -2.341052  | -0.114553 | -0.354771 |
| H | 18.383868 | -1.746500 | -0.670300 | O | -2.521403  | 0.398065  | -1.460994 |
| H | 18.752976 | -0.201807 | 0.141942  | N | -1.145562  | -0.128930 | 0.273046  |
| H | 17.754030 | -1.427375 | 0.964650  | H | -1.005096  | -0.616641 | 1.153225  |
| C | 0.235680  | 2.465320  | 1.123683  | C | 0.082119   | 0.345799  | -0.348725 |
| H | -0.738051 | 2.320533  | 1.606268  | H | 0.071004   | 0.049647  | -1.404292 |
| H | 0.971943  | 1.942096  | 1.749800  | C | 0.231732   | 1.883511  | -0.293730 |
| C | 0.623116  | 3.944751  | 1.115159  | H | 1.159579   | 2.178500  | -0.794641 |
| O | 1.418880  | 4.414647  | 0.314311  | H | -0.591065  | 2.313428  | -0.874130 |
| N | 0.028918  | 4.705290  | 2.083333  | C | 1.234846   | -0.365765 | 0.382236  |
| H | 0.315995  | 5.669605  | 2.176227  | O | 1.061421   | -0.878799 | 1.492004  |

|   |           |           |           |  |            |           |           |
|---|-----------|-----------|-----------|--|------------|-----------|-----------|
| H | 0.328919  | 2.456705  | -1.102558 | H  | -0.580904  | 4.313233  | 2.784152  |
| H | -1.369474 | 1.999376  | -1.230129 | <u>Ac-(Ala)4-Gln-(Ala)4-NHMe C7<sub>eq</sub></u> |            |           |           |
| C | 1.268735  | 0.242306  | 0.237454  | C  | -14.133682 | -1.058731 | -0.565582 |
| O | 1.931923  | 1.168148  | 0.723304  | H  | -14.611418 | -0.726624 | 0.360899  |
| N | 1.685953  | -1.044253 | 0.229824  | H  | -14.023936 | -2.146951 | -0.543234 |
| H | 1.079424  | -1.733697 | -0.219335 | H  | -14.787594 | -0.814908 | -1.408791 |
| C | 2.872909  | -1.503079 | 0.957043  | C  | -12.773957 | -0.431458 | -0.810305 |
| H | 2.946655  | -0.883571 | 1.859786  | O  | -12.091520 | -0.728525 | -1.794124 |
| C | 2.721438  | -2.972847 | 1.336724  | N  | -12.356346 | 0.481075  | 0.109620  |
| H | 1.823546  | -3.113016 | 1.946506  | H  | -12.921811 | 0.655786  | 0.928895  |
| H | 2.651831  | -3.601670 | 0.444244  | C  | -11.121021 | 1.257800  | -0.042334 |
| H | 3.592003  | -3.308432 | 1.905408  | H  | -11.011304 | 1.448158  | -1.116064 |
| C | 4.165083  | -1.264763 | 0.137759  | C  | -11.226540 | 2.573395  | 0.721761  |
| O | 4.868753  | -2.197933 | -0.262712 | H  | -12.090949 | 3.146715  | 0.372307  |
| N | 4.460142  | 0.038188  | -0.079143 | H  | -11.316304 | 2.394725  | 1.797913  |
| H | 3.797997  | 0.733358  | 0.268947  | H  | -10.324660 | 3.171263  | 0.569690  |
| C | 5.545938  | 0.467819  | -0.966535 | C  | -9.889464  | 0.438633  | 0.414962  |
| H | 5.608444  | -0.272785 | -1.773725 | O  | -9.253558  | 0.728503  | 1.433703  |
| C | 5.242260  | 1.848924  | -1.538306 | N  | -9.574851  | -0.597966 | -0.395212 |
| H | 4.284888  | 1.835839  | -2.068562 | H  | -10.206376 | -0.787961 | -1.174885 |
| H | 5.204627  | 2.599156  | -0.743165 | C  | -8.556509  | -1.595169 | -0.046371 |
| H | 6.028035  | 2.151076  | -2.235112 | H  | -8.584684  | -1.711236 | 1.044591  |
| C | 6.905901  | 0.454420  | -0.226046 | C  | -8.867258  | -2.923186 | -0.729223 |
| O | 7.529320  | 1.492012  | 0.020097  | H  | -9.865594  | -3.270068 | -0.445029 |
| N | 7.347429  | -0.779888 | 0.110182  | H  | -8.817600  | -2.822340 | -1.817156 |
| H | 6.730716  | -1.567743 | -0.093858 | H  | -8.134043  | -3.678921 | -0.437111 |
| C | 8.513216  | -0.995600 | 0.973809  | C  | -7.139097  | -1.092793 | -0.415767 |
| H | 8.541409  | -0.159148 | 1.683582  | O  | -6.464464  | -1.631771 | -1.299768 |
| C | 8.373608  | -2.318280 | 1.720769  | N  | -6.706580  | -0.039251 | 0.314490  |
| H | 7.446167  | -2.327790 | 2.302050  | H  | -7.358945  | 0.366147  | 0.986865  |
| H | 8.369684  | -3.160308 | 1.022606  | C  | -5.477418  | 0.692970  | -0.011121 |
| H | 9.218518  | -2.460491 | 2.399098  | H  | -5.376578  | 0.675909  | -1.103600 |
| C | 9.829873  | -0.949124 | 0.159245  | C  | -5.559758  | 2.133458  | 0.484220  |
| O | 10.545034 | -1.946871 | 0.016570  | H  | -6.436384  | 2.626403  | 0.051775  |
| N | 10.125580 | 0.264829  | -0.357158 | H  | -5.633088  | 2.164963  | 1.575481  |
| H | 9.448904  | 1.014043  | -0.208508 | H  | -4.663339  | 2.688409  | 0.193131  |
| C | 11.240231 | 0.487037  | -1.286332 | C  | -4.235783  | -0.024729 | 0.566206  |
| H | 11.341911 | -0.429750 | -1.879945 | O  | -3.561072  | 0.461945  | 1.483163  |
| C | 10.935653 | 1.675198  | -2.192185 | N  | -3.925471  | -1.196619 | -0.034521 |
| H | 9.999151  | 1.510922  | -2.735074 | H  | -4.580353  | -1.545853 | -0.736865 |
| H | 10.858785 | 2.596876  | -1.608127 | C  | -2.832049  | -2.063448 | 0.419641  |
| H | 11.744653 | 1.815063  | -2.913544 | H  | -2.781803  | -1.968420 | 1.512308  |
| C | 12.573184 | 0.700683  | -0.519135 | C  | -3.105659  | -3.511685 | 0.027160  |
| O | 13.150590 | 1.783139  | -0.504472 | H  | -4.049223  | -3.849581 | 0.466446  |
| N | 13.026741 | -0.422218 | 0.100192  | H  | -3.159965  | -3.618402 | -1.060522 |
| H | 12.412409 | -1.234279 | 0.091337  | H  | -2.297664  | -4.157346 | 0.378601  |
| C | 14.211948 | -0.422098 | 0.935955  | C  | -1.472024  | -1.573030 | -0.139328 |
| H | 13.958672 | -0.521501 | 1.999864  | O  | -0.738334  | -2.290017 | -0.827377 |
| H | 14.880674 | -1.245274 | 0.659454  | N  | -1.162221  | -0.299962 | 0.200227  |
| H | 14.727366 | 0.527576  | 0.784343  | H  | -1.824065  | 0.185505  | 0.807154  |
| C | -0.800483 | 2.685516  | 0.724850  | C  | -0.097360  | 0.462283  | -0.450365 |
| H | -1.519300 | 2.122808  | 1.333675  | H  | 0.006566   | 0.044718  | -1.460822 |
| H | 0.110192  | 2.810541  | 1.315898  | C  | -0.487072  | 1.940806  | -0.584812 |

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|   |           |           |           |   |           |           |           |
|---|-----------|-----------|-----------|---|-----------|-----------|-----------|
| H | -1.894487 | 1.433988  | -0.017315 | C   | -1.489096 | 4.015815  | 0.427170  |
| C | -0.159540 | 2.622822  | 0.278752  | O   | -2.461033 | 4.098923  | -0.316595 |
| H | 0.361799  | 3.325345  | -0.373185 | N   | -0.966853 | 5.103999  | 1.061405  |
| C | -0.883427 | 3.392547  | 1.390355  | H   | -1.390799 | 6.006725  | 0.898701  |
| H | -1.593842 | 4.089044  | 0.916709  | H   | -0.139144 | 5.051088  | 1.634610  |
| H | -1.463545 | 2.687377  | 2.006490  | <u>Ac-(Ala)4-Ser-(Ala)4-NHMe <math>\alpha</math>R</u> |           |           |           |
| C | 0.943832  | 1.691858  | 0.829883  | C   | -8.955650 | -2.989700 | 0.435423  |
| O | 2.133226  | 1.984362  | 0.735374  | H   | -9.875294 | -2.557056 | 0.840531  |
| N | 0.526631  | 0.522212  | 1.387044  | H   | -8.493581 | -3.633367 | 1.187768  |
| H | -0.463205 | 0.311519  | 1.457869  | H   | -9.215249 | -3.621771 | -0.421384 |
| C | 1.491224  | -0.443113 | 1.906701  | C   | -7.948161 | -1.949930 | -0.012851 |
| H | 2.098686  | 0.033921  | 2.682594  | O   | -6.768846 | -2.227546 | -0.226236 |
| C | 0.762394  | -1.659634 | 2.486440  | N   | -8.418170 | -0.670244 | -0.162701 |
| H | 0.083734  | -1.358704 | 3.292553  | H   | -9.417793 | -0.522569 | -0.103177 |
| H | 0.185259  | -2.169158 | 1.706468  | C   | -7.638558 | 0.341462  | -0.881842 |
| H | 1.493682  | -2.363373 | 2.893131  | H   | -7.327722 | -0.063448 | -1.851611 |
| C | 2.515364  | -0.896825 | 0.846089  | C   | -8.480060 | 1.603829  | -1.100878 |
| O | 3.661263  | -1.197307 | 1.185062  | H   | -9.364852 | 1.380248  | -1.707179 |
| N | 2.079359  | -0.959940 | -0.433797 | H   | -8.805082 | 2.034765  | -0.147207 |
| H | 1.091684  | -0.829373 | -0.630243 | H   | -7.883266 | 2.349891  | -1.631030 |
| C | 2.951010  | -1.391648 | -1.520394 | C   | -6.319451 | 0.699866  | -0.181114 |
| H | 3.346010  | -2.389194 | -1.297982 | O   | -5.383392 | 1.161718  | -0.833056 |
| C | 2.161947  | -1.424793 | -2.834928 | N   | -6.254996 | 0.507485  | 1.159394  |
| H | 1.326477  | -2.129059 | -2.762265 | H   | -7.044915 | 0.079681  | 1.623738  |
| H | 1.761643  | -0.432038 | -3.070262 | C   | -5.032677 | 0.768262  | 1.909835  |
| H | 2.823807  | -1.740471 | -3.645541 | H   | -4.732118 | 1.806394  | 1.735949  |
| C | 4.207942  | -0.515215 | -1.688219 | C   | -5.266508 | 0.548207  | 3.407928  |
| O | 5.203475  | -0.997809 | -2.237037 | H   | -6.042360 | 1.224603  | 3.781604  |
| N | 4.144492  | 0.763703  | -1.253855 | H   | -5.568598 | -0.485417 | 3.614298  |
| H | 3.327566  | 1.090099  | -0.743355 | H   | -4.340985 | 0.747436  | 3.953088  |
| C | 5.291387  | 1.660080  | -1.357626 | C   | -3.828912 | -0.064053 | 1.427886  |
| H | 5.726309  | 1.525303  | -2.353368 | O   | -2.686784 | 0.338658  | 1.689057  |
| C | 4.850683  | 3.116616  | -1.183985 | N   | -4.069541 | -1.204519 | 0.751214  |
| H | 4.162495  | 3.406931  | -1.984691 | H   | -5.021740 | -1.474011 | 0.509586  |
| H | 4.340875  | 3.261846  | -0.225802 | C   | -2.965707 | -2.000163 | 0.217370  |
| H | 5.733442  | 3.759267  | -1.218241 | H   | -2.289035 | -2.251496 | 1.039373  |
| C | 6.458149  | 1.326367  | -0.397327 | C   | -3.493903 | -3.288097 | -0.423394 |
| O | 7.526435  | 1.917285  | -0.534103 | H   | -4.023685 | -3.897063 | 0.315833  |
| N | 6.229059  | 0.370464  | 0.540816  | H   | -4.183825 | -3.068397 | -1.244372 |
| H | 5.308154  | -0.052323 | 0.621923  | H   | -2.652401 | -3.864902 | -0.815255 |
| C | 7.281825  | -0.158286 | 1.394827  | C   | -2.087853 | -1.222148 | -0.784107 |
| H | 8.125378  | 0.532939  | 1.298381  | O   | -0.907332 | -1.547254 | -0.922262 |
| C | 6.829565  | -0.225066 | 2.857857  | N   | -2.674430 | -0.233448 | -1.501826 |
| H | 6.643967  | 0.782535  | 3.243875  | H   | -3.631444 | 0.047252  | -1.304210 |
| H | 5.903827  | -0.805093 | 2.947810  | C   | -1.899947 | 0.558592  | -2.455116 |
| H | 7.604875  | -0.709270 | 3.455689  | H   | -1.300560 | -0.128708 | -3.057861 |
| C | 7.812100  | -1.537475 | 0.934110  | C   | -2.832566 | 1.365334  | -3.364615 |
| O | 8.593704  | -2.169096 | 1.645240  | H   | -3.468688 | 0.695789  | -3.953011 |
| N | 7.389518  | -1.981922 | -0.273288 | H   | -3.476586 | 2.031536  | -2.780725 |
| H | 6.752070  | -1.429735 | -0.836944 | H   | -2.232134 | 1.969390  | -4.049678 |
| C | 7.860222  | -3.243789 | -0.809880 | C   | -0.861183 | 1.487153  | -1.786525 |
| H | 7.816751  | -4.019897 | -0.039647 | O   | 0.128201  | 1.845924  | -2.412341 |
| H | 7.220665  | -3.522470 | -1.650815 | N   | -1.147194 | 1.903212  | -0.517340 |

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|   |           |           |           |                                     |            |           |           |  |
|---|-----------|-----------|-----------|-------------------------------------|------------|-----------|-----------|--|
| H | 0.060358  | 0.334080  | -1.778971 | H                                   | 8.899398   | -3.176759 | -1.158056 |  |
| C | 0.270992  | 1.746967  | -0.189740 | O                                   | 0.099290   | 4.070351  | 2.151920  |  |
| H | 1.131117  | 2.206148  | -0.704638 | H                                   | -0.339828  | 4.496341  | 2.902665  |  |
| H | -0.629253 | 2.306445  | -0.475216 | <u>Ac-(Ala)4-Ser-(Ala)4-NHMe C5</u> |            |           |           |  |
| C | 1.274102  | -0.602146 | -0.235522 | C                                   | -17.792191 | -0.340417 | 0.919567  |  |
| O | 1.084201  | -1.564582 | 0.507587  | H                                   | -17.466669 | -0.886287 | 1.810451  |  |
| N | 2.485216  | -0.269070 | -0.729057 | H                                   | -18.317619 | -1.028694 | 0.250200  |  |
| H | 2.636429  | 0.578843  | -1.268166 | H                                   | -18.507360 | 0.432781  | 1.217584  |  |
| C | 3.711475  | -0.922956 | -0.303581 | C                                   | -16.651528 | 0.314261  | 0.152329  |  |
| H | 3.652603  | -1.103413 | 0.776806  | O                                   | -16.844682 | 0.954583  | -0.878160 |  |
| C | 3.927520  | -2.269155 | -1.019093 | N                                   | -15.412736 | 0.147991  | 0.691059  |  |
| H | 3.078591  | -2.924561 | -0.809095 | H                                   | -15.245758 | -0.452469 | 1.490748  |  |
| H | 4.004675  | -2.120771 | -2.101246 | C                                   | -14.213161 | 0.641368  | 0.042918  |  |
| H | 4.840817  | -2.762027 | -0.668951 | H                                   | -14.299861 | 0.457678  | -1.035561 |  |
| C | 4.850124  | 0.072107  | -0.597259 | C                                   | -14.015901 | 2.153928  | 0.263181  |  |
| O | 4.661833  | 1.070130  | -1.297405 | H                                   | -14.891693 | 2.681287  | -0.122764 |  |
| N | 6.044874  | -0.235776 | -0.051366 | H                                   | -13.906272 | 2.374720  | 1.330279  |  |
| H | 6.194988  | -1.088119 | 0.480988  | H                                   | -13.127610 | 2.521858  | -0.262326 |  |
| C | 7.252147  | 0.534229  | -0.299305 | C                                   | -13.036852 | -0.171240 | 0.610882  |  |
| H | 7.295733  | 0.782324  | -1.366891 | O                                   | -13.161197 | -0.867271 | 1.621093  |  |
| C | 7.282280  | 1.841834  | 0.514207  | N                                   | -11.870878 | -0.051665 | -0.062475 |  |
| H | 6.408628  | 2.444306  | 0.253885  | H                                   | -11.768117 | 0.567289  | -0.861035 |  |
| H | 7.260276  | 1.625378  | 1.587340  | C                                   | -10.632086 | -0.659006 | 0.391523  |  |
| H | 8.183701  | 2.424072  | 0.294667  | H                                   | -10.560569 | -0.534045 | 1.478875  |  |
| C | 8.430528  | -0.387603 | 0.066579  | C                                   | -10.571055 | -2.163040 | 0.063456  |  |
| O | 8.252635  | -1.430993 | 0.698609  | H                                   | -11.416964 | -2.665605 | 0.538951  |  |
| N | 9.646871  | 0.039448  | -0.333552 | H                                   | -10.624451 | -2.320560 | -1.018850 |  |
| H | 9.781105  | 0.932120  | -0.799659 | H                                   | -9.644443  | -2.613067 | 0.436112  |  |
| C | 10.881023 | -0.634196 | 0.034684  | C                                   | -9.492463  | 0.115514  | -0.295079 |  |
| H | 10.808427 | -0.944831 | 1.084098  | O                                   | -9.712065  | 0.864199  | -1.249799 |  |
| C | 11.143450 | -1.880152 | -0.832028 | N                                   | -8.259007  | -0.101388 | 0.209319  |  |
| H | 10.310248 | -2.577912 | -0.717115 | H                                   | -8.088892  | -0.767626 | 0.957419  |  |
| H | 11.232345 | -1.601387 | -1.887175 | C                                   | -7.052209  | 0.444397  | -0.388192 |  |
| H | 12.064942 | -2.387380 | -0.526684 | H                                   | -7.128246  | 0.350163  | -1.478474 |  |
| C | 12.001252 | 0.410756  | -0.119129 | C                                   | -6.851946  | 1.930162  | -0.034633 |  |
| O | 11.810738 | 1.468597  | -0.723346 | H                                   | -7.717144  | 2.499508  | -0.383135 |  |
| N | 13.187586 | 0.076354  | 0.431740  | H                                   | -6.754106  | 2.056415  | 1.048691  |  |
| H | 13.344010 | -0.820157 | 0.883152  | H                                   | -5.954011  | 2.334059  | -0.514735 |  |
| C | 14.380460 | 0.893126  | 0.288611  | C                                   | -5.888609  | -0.424844 | 0.125302  |  |
| H | 14.424265 | 1.262861  | -0.743453 | O                                   | -6.044865  | -1.211698 | 1.061808  |  |
| C | 14.371979 | 2.099302  | 1.246985  | N                                   | -4.709809  | -0.247370 | -0.506652 |  |
| H | 13.487481 | 2.708532  | 1.045749  | H                                   | -4.584429  | 0.450690  | -1.234263 |  |
| H | 14.344815 | 1.760795  | 2.287697  | C                                   | -3.477889  | -0.891738 | -0.081504 |  |
| H | 15.261567 | 2.723514  | 1.108164  | H                                   | -3.429707  | -0.864071 | 1.013853  |  |
| C | 15.575061 | -0.039677 | 0.563071  | C                                   | -3.402104  | -2.358960 | -0.543092 |  |
| O | 15.415380 | -1.129957 | 1.107913  | H                                   | -4.251469  | -2.908221 | -0.129278 |  |
| N | 16.785032 | 0.444882  | 0.185369  | H                                   | -3.436450  | -2.418889 | -1.635921 |  |
| H | 16.821266 | 1.340903  | -0.280119 | H                                   | -2.478440  | -2.834866 | -0.196983 |  |
| C | 18.030718 | -0.273402 | 0.406465  | C                                   | -2.330204  | -0.049693 | -0.668988 |  |
| H | 18.524624 | -0.503658 | -0.544111 | O                                   | -2.541831  | 0.797450  | -1.541647 |  |
| H | 18.714970 | 0.311482  | 1.031152  | N                                   | -1.104602  | -0.318695 | -0.178348 |  |
| H | 17.785920 | -1.205189 | 0.916953  | H                                   | -0.940167  | -1.048797 | 0.508466  |  |
| O | 0.459846  | 1.712632  | 1.215590  | C                                   | 0.103940   | 0.302333  | -0.682692 |  |

|                                     |           |           |           |                                  |            |                        |           |
|-------------------------------------|-----------|-----------|-----------|----------------------------------|------------|------------------------|-----------|
| H                                   | -1.275703 | 2.875465  | -0.096195 | H                                | 0.454915   | 2.624286               | 1.542781  |
| H                                   | -0.537044 | 2.730611  | 1.510748  | <u>Ac-(Ala)4-Ser-(Ala)4-NHMe</u> |            | <u>C7<sub>eq</sub></u> |           |
| C                                   | 1.225272  | 0.640377  | 0.817256  | C                                | -14.186271 | -1.247029              | -0.853068 |
| O                                   | 1.935797  | 1.435326  | 1.458780  | H                                | -14.713840 | -0.975530              | 0.066087  |
| N                                   | 1.565874  | -0.644939 | 0.608900  | H                                | -13.988615 | -2.322977              | -0.849548 |
| H                                   | 0.928146  | -1.211567 | 0.043745  | H                                | -14.835415 | -1.038408              | -1.709308 |
| C                                   | 2.750273  | -1.269188 | 1.208621  | C                                | -12.876697 | -0.506158              | -1.046988 |
| H                                   | 2.884900  | -0.806484 | 2.193572  | O                                | -12.145090 | -0.726207              | -2.015723 |
| C                                   | 2.535718  | -2.772228 | 1.353699  | N                                | -12.559992 | 0.418440               | -0.099299 |
| H                                   | 1.648248  | -2.969055 | 1.962991  | H                                | -13.161543 | 0.533374               | 0.704718  |
| H                                   | 2.413879  | -3.244752 | 0.374796  | C                                | -11.391961 | 1.299888               | -0.205555 |
| H                                   | 3.402949  | -3.232625 | 1.833641  | H                                | -11.272698 | 1.520944               | -1.272434 |
| C                                   | 4.015225  | -0.957904 | 0.371600  | C                                | -11.628443 | 2.585914               | 0.579426  |
| O                                   | 4.618041  | -1.833430 | -0.256416 | H                                | -12.529930 | 3.089905               | 0.217252  |
| N                                   | 4.396506  | 0.340924  | 0.396380  | H                                | -11.729787 | 2.378494               | 1.649315  |
| H                                   | 3.799591  | 0.991951  | 0.906254  | H                                | -10.778202 | 3.262274               | 0.462417  |
| C                                   | 5.425150  | 0.884394  | -0.498157 | C                                | -10.107015 | 0.578336               | 0.268287  |
| H                                   | 5.361376  | 0.319517  | -1.436858 | O                                | -9.520965  | 0.901825               | 1.307000  |
| C                                   | 5.164813  | 2.365737  | -0.753911 | N                                | -9.687767  | -0.414065              | -0.549945 |
| H                                   | 4.159915  | 2.508530  | -1.164153 | H                                | -10.284355 | -0.643213              | -1.346854 |
| H                                   | 5.264460  | 2.942874  | 0.170103  | C                                | -8.606655  | -1.337344              | -0.186084 |
| H                                   | 5.895222  | 2.761062  | -1.463950 | H                                | -8.660551  | -1.480282              | 0.900782  |
| C                                   | 6.843861  | 0.654199  | 0.077387  | C                                | -8.791708  | -2.669997              | -0.904944 |
| O                                   | 7.567258  | 1.590489  | 0.431609  | H                                | -9.771834  | -3.094124              | -0.666077 |
| N                                   | 7.220000  | -0.644211 | 0.139261  | H                                | -8.708621  | -2.543277              | -1.988074 |
| H                                   | 6.532951  | -1.345481 | -0.140878 | H                                | -8.016976  | -3.376746              | -0.597659 |
| C                                   | 8.450901  | -1.079943 | 0.807013  | C                                | -7.221715  | -0.719099              | -0.496378 |
| H                                   | 8.618837  | -0.388510 | 1.642319  | O                                | -6.477671  | -1.181215              | -1.367664 |
| C                                   | 8.290222  | -2.505668 | 1.325238  | N                                | -6.896885  | 0.346247               | 0.273246  |
| H                                   | 7.434193  | -2.566523 | 2.004688  | H                                | -7.605362  | 0.682204               | 0.927804  |
| H                                   | 8.144136  | -3.206161 | 0.497888  | C                                | -5.724543  | 1.186837               | 0.007311  |
| H                                   | 9.190674  | -2.816525 | 1.860606  | H                                | -5.586513  | 1.208576               | -1.081329 |
| C                                   | 9.674379  | -0.961860 | -0.136001 | C                                | -5.958395  | 2.597537               | 0.538462  |
| O                                   | 10.299254 | -1.956023 | -0.521394 | H                                | -6.859051  | 3.025235               | 0.087225  |
| N                                   | 9.998699  | 0.305370  | -0.477272 | H                                | -6.068868  | 2.591029               | 1.626577  |
| H                                   | 9.402919  | 1.054255  | -0.123031 | H                                | -5.106147  | 3.238410               | 0.299577  |
| C                                   | 11.031122 | 0.624463  | -1.470888 | C                                | -4.444401  | 0.564548               | 0.615281  |
| H                                   | 11.013591 | -0.184372 | -2.211386 | O                                | -3.833555  | 1.100036               | 1.547376  |
| C                                   | 10.721421 | 1.961084  | -2.136154 | N                                | -4.048102  | -0.589521              | 0.030505  |
| H                                   | 9.727005  | 1.938129  | -2.593685 | H                                | -4.656350  | -0.975738              | -0.694366 |
| H                                   | 10.766337 | 2.775496  | -1.407333 | C                                | -2.971650  | -1.425245              | 0.572939  |
| H                                   | 11.463043 | 2.176692  | -2.909458 | H                                | -3.014812  | -1.334944              | 1.666123  |
| C                                   | 12.442070 | 0.638723  | -0.823143 | C                                | -3.172864  | -2.877876              | 0.153394  |
| O                                   | 13.086987 | 1.673454  | -0.687147 | H                                | -4.150055  | -3.235807              | 0.491923  |
| N                                   | 12.878637 | -0.594844 | -0.450965 | H                                | -3.109103  | -2.981386              | -0.933565 |
| H                                   | 12.215159 | -1.363072 | -0.530500 | H                                | -2.394701  | -3.509347              | 0.589010  |
| C                                   | 14.133566 | -0.794880 | 0.247936  | C                                | -1.584851  | -0.900404              | 0.128231  |
| H                                   | 13.973576 | -1.064372 | 1.300418  | O                                | -0.845113  | -1.548984              | -0.618713 |
| H                                   | 14.720117 | -1.588537 | -0.228883 | N                                | -1.249147  | 0.306267               | 0.644389  |
| H                                   | 14.692359 | 0.141324  | 0.205639  | H                                | -1.961206  | 0.774865               | 1.210510  |
| O                                   | 0.685125  | 3.387471  | -0.048027 | C                                | -0.105945  | 1.085618               | 0.169962  |
| H                                   | 1.444300  | 3.163801  | 0.520762  | H                                | -0.003703  | 0.928537               | -0.911489 |
| <u>Ac-(Ala)4-Thr-(Ala)4-NHMe_αR</u> |           |           |           | C                                | -0.364580  | 2.579942               | 0.433508  |

---

|   |           |           |           |   |           |           |           |
|---|-----------|-----------|-----------|---|-----------|-----------|-----------|
| O | 2.140888  | 1.966012  | 0.556137  | C | -8.903771 | -3.079767 | 0.600745  |
| N | 0.558093  | 0.543176  | 1.339511  | H | -9.841521 | -2.624278 | 0.932443  |
| H | -0.428644 | 0.331221  | 1.441013  | H | -8.460303 | -3.641578 | 1.426562  |
| C | 1.537253  | -0.364057 | 1.931315  | H | -9.125855 | -3.795334 | -0.198818 |
| H | 2.141811  | 0.181838  | 2.662866  | C | -7.892752 | -2.074285 | 0.086913  |
| C | 0.825311  | -1.537576 | 2.612346  | O | -6.711097 | -2.365766 | -0.092598 |
| H | 0.148457  | -1.179581 | 3.396376  | N | -8.360993 | -0.809345 | -0.160858 |
| H | 0.248548  | -2.114061 | 1.880216  | H | -9.361137 | -0.658239 | -0.123502 |
| H | 1.566427  | -2.198703 | 3.069672  | C | -7.572676 | 0.148818  | -0.941103 |
| C | 2.562572  | -0.889863 | 0.906474  | H | -7.249576 | -0.324567 | -1.875206 |
| O | 3.713942  | -1.145958 | 1.263088  | C | -8.412033 | 1.390907  | -1.261180 |
| N | 2.122962  | -1.062622 | -0.362052 | H | -9.288611 | 1.122780  | -1.861300 |
| H | 1.131939  | -0.967935 | -0.562034 | H | -8.749817 | 1.888429  | -0.345101 |
| C | 2.996765  | -1.566373 | -1.415403 | H | -7.808891 | 2.098003  | -1.835680 |
| H | 3.400345  | -2.541959 | -1.122139 | C | -6.262665 | 0.558661  | -0.251378 |
| C | 2.206139  | -1.701597 | -2.722424 | O | -5.318723 | 0.975261  | -0.922562 |
| H | 1.375918  | -2.404693 | -2.596740 | N | -6.213700 | 0.461640  | 1.099793  |
| H | 1.798586  | -0.731453 | -3.028899 | H | -7.008907 | 0.068050  | 1.584871  |
| H | 2.868898  | -2.071290 | -3.509131 | C | -4.999024 | 0.775206  | 1.842660  |
| C | 4.245992  | -0.694092 | -1.649843 | H | -4.695797 | 1.798362  | 1.599003  |
| O | 5.246218  | -1.208794 | -2.159845 | C | -5.249315 | 0.661795  | 3.349969  |
| N | 4.170581  | 0.614145  | -1.316869 | H | -6.025855 | 1.365890  | 3.666765  |
| H | 3.349868  | 0.972641  | -0.834487 | H | -5.558723 | -0.353491 | 3.625162  |
| C | 5.309115  | 1.510186  | -1.490715 | H | -4.328726 | 0.895386  | 3.889870  |
| H | 5.741423  | 1.308431  | -2.476225 | C | -3.791035 | -0.089057 | 1.432910  |
| C | 4.855807  | 2.971565  | -1.420158 | O | -2.651494 | 0.335384  | 1.668391  |
| H | 4.158633  | 3.196499  | -2.234046 | N | -4.025046 | -1.280225 | 0.847022  |
| H | 4.352036  | 3.181748  | -0.470891 | H | -4.974930 | -1.568340 | 0.618383  |
| H | 5.732072  | 3.617890  | -1.508931 | C | -2.915175 | -2.112524 | 0.386750  |
| C | 6.483212  | 1.258268  | -0.514921 | H | -2.239186 | -2.285857 | 1.229155  |
| O | 7.547292  | 1.842177  | -0.704757 | C | -3.433174 | -3.455676 | -0.138627 |
| N | 6.265199  | 0.378968  | 0.497917  | H | -3.960510 | -4.000309 | 0.650879  |
| H | 5.348353  | -0.044039 | 0.617244  | H | -4.122281 | -3.315109 | -0.977442 |
| C | 7.326728  | -0.076036 | 1.383084  | H | -2.586700 | -4.059105 | -0.475867 |
| H | 8.165824  | 0.609746  | 1.227239  | C | -2.038010 | -1.419775 | -0.676642 |
| C | 6.884708  | -0.030249 | 2.850088  | O | -0.856425 | -1.751969 | -0.785495 |
| H | 6.694784  | 1.003421  | 3.156964  | N | -2.627166 | -0.496122 | -1.474628 |
| H | 5.963661  | -0.607293 | 2.992237  | H | -3.584498 | -0.202487 | -1.299311 |
| H | 7.667294  | -0.461043 | 3.478510  | C | -1.854664 | 0.221022  | -2.486722 |
| C | 7.860995  | -1.485021 | 1.028214  | H | -1.234400 | -0.507793 | -3.014679 |
| O | 8.648734  | -2.056147 | 1.782516  | C | -2.788198 | 0.921099  | -3.479854 |
| N | 7.433918  | -2.023817 | -0.138324 | H | -3.398499 | 0.187066  | -4.016447 |
| H | 6.791490  | -1.519535 | -0.740073 | H | -3.457318 | 1.620904  | -2.967930 |
| C | 7.904194  | -3.323327 | -0.576171 | H | -2.188135 | 1.475683  | -4.205752 |
| H | 7.871332  | -4.034504 | 0.254854  | C | -0.842091 | 1.228541  | -1.896331 |
| H | 7.257138  | -3.670925 | -1.385103 | O | 0.135333  | 1.563699  | -2.553721 |
| H | 8.939528  | -3.281738 | -0.939550 | N | -1.135374 | 1.734874  | -0.662412 |
| O | 0.140683  | 4.005536  | 1.897893  | H | -1.870542 | 1.288964  | -0.124477 |
| H | -0.279681 | 4.530112  | 2.596245  | C | -0.164666 | 2.539175  | 0.071587  |
| C | -1.814217 | 4.434867  | 0.500177  | H | 0.344593  | 3.192659  | -0.639204 |
| H | -2.585859 | 3.966106  | -0.119395 | C | -0.889851 | 3.392529  | 1.131292  |
| H | -2.316944 | 5.020953  | 1.280467  | H | -1.484522 | 2.715145  | 1.766596  |
| H | -1.234250 | 5.123262  | -0.123661 | C | 0.956116  | 1.670612  | 0.689006  |

|   |           |           |           | Ac-(Ala) <sub>4</sub> -Thr-(Ala) <sub>4</sub> -NHMe C5 |
|---|-----------|-----------|-----------|--|
| C | 1.217664  | 0.307280  | 0.639441  | C -17.675621 -1.422655 0.045225                        |
| O | 0.992919  | -0.505350 | 1.535471  | H -17.434526 -1.595019 1.098693                        |
| N | 2.410199  | 0.418117  | 0.015311  | H -17.996631 -2.366950 -0.406107                       |
| H | 2.599241  | 1.146678  | -0.667106 | H -18.518912 -0.728217 -0.019039                       |
| C | 3.594440  | -0.304369 | 0.448377  | C -16.514507 -0.861539 -0.764133                       |
| H | 3.623981  | -0.300082 | 1.545074  | O -16.628684 -0.577944 -1.954003                       |
| C | 3.592314  | -1.764896 | -0.039578 | N -15.350176 -0.694531 -0.079318                       |
| H | 2.702171  | -2.267387 | 0.346789  | H -15.233884 -1.007971 0.877841                        |
| H | 3.577656  | -1.804343 | -1.133782 | C -14.129978 -0.249558 -0.723864                       |
| H | 4.476601  | -2.304332 | 0.316723  | H -14.049606 -0.748178 -1.698169                       |
| C | 4.799375  | 0.483124  | -0.100659 | C -14.119381 1.274115 -0.955914                        |
| O | 4.650221  | 1.385192  | -0.928763 | H -14.980715 1.541563 -1.572828                        |
| N | 6.005341  | 0.107480  | 0.374442  | H -14.183129 1.807211 -0.001341                        |
| H | 6.117343  | -0.675392 | 1.012206  | H -13.207451 1.592689 -1.473009                        |
| C | 7.255246  | 0.665789  | -0.113289 | H -12.965255 -0.690130 0.179252                        |
| H | 7.191448  | 0.762426  | -1.203953 | C -13.153741 -1.070335 1.336922                        |
| C | 7.543653  | 2.053380  | 0.489781  | H -11.737000 -0.611035 -0.379955                       |
| H | 6.722006  | 2.728939  | 0.239267  | H -11.592058 -0.243991 -1.315744                       |
| H | 7.631759  | 1.986364  | 1.579132  | C -10.514877 -0.868742 0.361430                        |
| H | 8.472938  | 2.473399  | 0.089913  | C -10.610579 -0.419775 1.357651                        |
| C | 8.352095  | -0.350854 | 0.253786  | H -10.243106 -2.376356 0.524817                        |
| O | 8.138567  | -1.256117 | 1.062906  | N -11.086294 -2.835699 1.046649                        |
| N | 9.542769  | -0.163110 | -0.353570 | H -10.127045 -2.852212 -0.454554                       |
| H | 9.715940  | 0.622271  | -0.974374 | C -9.333358 -2.553752 1.108722                         |
| C | 10.723233 | -0.951560 | -0.041729 | H -9.382079 -0.172252 -0.414276                        |
| H | 10.776086 | -1.085611 | 1.045709  | O -9.544551 0.215512 -1.573354                         |
| C | 10.686564 | -2.339377 | -0.709081 | N -8.216935 -0.041665 0.255061                         |
| H | 9.796296  | -2.874904 | -0.370429 | H -8.084556 -0.412171 1.191884                         |
| H | 10.650565 | -2.239599 | -1.798911 | C -7.007729 0.484715 -0.354939                         |
| H | 11.569227 | -2.930442 | -0.442163 | C -6.903971 0.051111 -1.357319                         |
| C | 11.929807 | -0.123173 | -0.519611 | O -7.043339 2.019351 -0.482324                         |
| O | 11.783358 | 0.853195  | -1.258262 | N -7.906440 2.307801 -1.087212                         |
| N | 13.136163 | -0.551944 | -0.091135 | H -7.128091 2.483452 0.505875                          |
| H | 13.246428 | -1.386917 | 0.476842  | C -6.136871 2.396752 -0.967745                         |
| C | 14.385149 | 0.045409  | -0.531164 | H -5.840334 0.016850 0.534434                          |
| H | 14.306968 | 0.257167  | -1.604784 | C -6.041120 -0.450300 1.657694                         |
| C | 14.689466 | 1.359931  | 0.212504  | H -4.609421 0.175487 0.004718                          |
| H | 13.872194 | 2.064929  | 0.041553  | N -4.462889 0.606472 -0.903336                         |
| H | 14.785985 | 1.177443  | 1.287595  | C -3.386638 -0.096582 0.742122                         |
| H | 15.619559 | 1.813676  | -0.147215 | O -3.507466 0.273720 1.767071                          |
| C | 15.478055 | -1.010615 | -0.281757 | C -3.059367 -1.601544 0.793138                         |
| O | 15.273819 | -1.971216 | 0.457500  | H -3.878545 -2.129479 1.287676                         |
| N | 16.658132 | -0.779560 | -0.910699 | H -2.938587 -1.999371 -0.219901                        |
| H | 16.729277 | 0.022132  | -1.521485 | C -2.135002 -1.787205 1.350674                         |
| C | 17.820809 | -1.640329 | -0.757239 | H -2.270746 0.690584 0.033557                          |
| H | 18.121403 | -2.067168 | -1.720494 | O -2.431435 1.142206 -1.101696                         |
| H | 18.666179 | -1.086831 | -0.333318 | N -1.127075 0.830726 0.743805                          |
| H | 17.544434 | -2.447984 | -0.078916 | H -0.992440 0.298926 1.598617                          |
| C | -0.628529 | 3.724374  | 0.092292  | C 0.116688 1.273770 0.142984                           |
| H | -0.862978 | 3.656663  | -0.974519 | H 0.012213 1.199235 -0.944909                          |
| H | -1.541062 | 3.522755  | 0.660140  | C 0.468177 2.738235 0.487145                           |
| H | -0.306553 | 4.751534  | 0.306883  | O 0.726348 2.763812 1.888444                           |
| H | 1.387571  | 2.987719  | -0.070134 |  |

|   |           |           |           |                                  |            |                        |           |
|---|-----------|-----------|-----------|----------------------------------|------------|------------------------|-----------|
| H | -0.412899 | 2.767798  | 1.348975  | H                                | 0.887077   | 3.684693               | 2.145784  |
| C | 1.262649  | 0.579544  | 0.741963  | <u>Ac-(Ala)4-Thr-(Ala)4-NHMe</u> |            | <u>C7<sub>eq</sub></u> |           |
| O | 1.949576  | 1.306203  | 1.482766  | C                                | -14.178193 | -1.470077              | -0.494729 |
| N | 1.589973  | -0.696755 | 0.465320  | H                                | -14.658337 | -1.174324              | 0.442726  |
| H | 0.961823  | -1.217025 | -0.152231 | H                                | -13.955935 | -2.540681              | -0.462909 |
| C | 2.732401  | -1.383391 | 1.079334  | H                                | -14.880008 | -1.307753              | -1.318919 |
| H | 2.827998  | -0.989479 | 2.098077  | C                                | -12.899173 | -0.709781              | -0.790796 |
| C | 2.488999  | -2.888386 | 1.111423  | O                                | -12.212950 | -0.957552              | -1.785614 |
| H | 1.569872  | -3.110857 | 1.662175  | N                                | -12.558622 | 0.265798               | 0.095872  |
| H | 2.409104  | -3.291872 | 0.097947  | H                                | -13.118144 | 0.400579               | 0.926708  |
| H | 3.325051  | -3.394913 | 1.600307  | C                                | -11.417639 | 1.164727               | -0.109566 |
| C | 4.035977  | -1.037511 | 0.318485  | H                                | -11.356223 | 1.336732               | -1.190173 |
| O | 4.646635  | -1.874145 | -0.353143 | C                                | -11.643548 | 2.481524               | 0.625750  |
| N | 4.434861  | 0.249490  | 0.452679  | H                                | -12.573973 | 2.948517               | 0.288063  |
| H | 3.828691  | 0.869500  | 0.989112  | H                                | -11.684791 | 2.323479               | 1.707971  |
| C | 5.480008  | 0.848736  | -0.385456 | H                                | -10.816616 | 3.169300               | 0.432444  |
| H | 5.426508  | 0.353067  | -1.363248 | C                                | -10.096912 | 0.490060               | 0.333481  |
| C | 5.229428  | 2.346062  | -0.537518 | O                                | -9.478023  | 0.860305               | 1.336851  |
| H | 4.228234  | 2.523476  | -0.943784 | N                                | -9.687893  | -0.519453              | -0.469137 |
| H | 5.324958  | 2.855307  | 0.426066  | H                                | -10.316258 | -0.793520              | -1.226357 |
| H | 5.967261  | 2.787078  | -1.212098 | C                                | -8.575823  | -1.410314              | -0.117189 |
| C | 6.889321  | 0.567816  | 0.189765  | H                                | -8.587303  | -1.521244              | 0.974759  |
| O | 7.616766  | 1.471796  | 0.613129  | C                                | -8.759733  | -2.767521              | -0.788823 |
| N | 7.253702  | -0.735143 | 0.168789  | H                                | -9.722125  | -3.202554              | -0.502244 |
| H | 6.564991  | -1.409964 | -0.166836 | H                                | -8.717663  | -2.672307              | -1.877508 |
| C | 8.475697  | -1.225378 | 0.814650  | H                                | -7.960590  | -3.449742              | -0.488676 |
| H | 8.642569  | -0.593404 | 1.696078  | C                                | -7.215624  | -0.775723              | -0.496586 |
| C | 8.299512  | -2.681314 | 1.234290  | O                                | -6.496299  | -1.247844              | -1.382997 |
| H | 7.438224  | -2.780232 | 1.902516  | N                                | -6.882297  | 0.315423               | 0.232226  |
| H | 8.153219  | -3.323194 | 0.360673  | H                                | -7.573255  | 0.657891               | 0.901985  |
| H | 9.193528  | -3.035530 | 1.753255  | C                                | -5.735418  | 1.168186               | -0.098528 |
| C | 9.707951  | -1.053922 | -0.108867 | H                                | -5.636562  | 1.163638               | -1.191532 |
| O | 10.330531 | -2.024662 | -0.553199 | C                                | -5.975707  | 2.587972               | 0.404889  |
| N | 10.041482 | 0.230900  | -0.364660 | H                                | -6.906586  | 2.982701               | -0.013976 |
| H | 9.447392  | 0.958345  | 0.034427  | H                                | -6.034031  | 2.609563               | 1.496783  |
| C | 11.081575 | 0.609220  | -1.329033 | H                                | -5.151989  | 3.241522               | 0.107019  |
| H | 11.064139 | -0.148155 | -2.122195 | C                                | -4.426178  | 0.580013               | 0.480964  |
| C | 10.782442 | 1.988841  | -1.905489 | O                                | -3.800809  | 1.138658               | 1.390321  |
| H | 9.790938  | 2.001374  | -2.369666 | N                                | -4.023724  | -0.573460              | -0.099308 |
| H | 10.826126 | 2.752533  | -1.123633 | H                                | -4.649366  | -0.984939              | -0.794867 |
| H | 11.530042 | 2.252019  | -2.658021 | C                                | -2.927360  | -1.388053              | 0.434968  |
| C | 12.488912 | 0.572736  | -0.674353 | H                                | -2.956567  | -1.289648              | 1.527903  |
| O | 13.139570 | 1.592420  | -0.469448 | C                                | -3.116515  | -2.846895              | 0.030687  |
| N | 12.915524 | -0.684931 | -0.379292 | H                                | -4.087449  | -3.211496              | 0.380075  |
| H | 12.247942 | -1.442176 | -0.512172 | H                                | -3.059605  | -2.959490              | -1.055636 |
| C | 14.164856 | -0.937914 | 0.312343  | H                                | -2.328879  | -3.466487              | 0.466389  |
| H | 13.996083 | -1.282539 | 1.341234  | C                                | -1.550518  | -0.854484              | -0.031563 |
| H | 14.753945 | -1.696344 | -0.216029 | O                                | -0.826617  | -1.497757              | -0.798933 |
| H | 14.725670 | -0.002404 | 0.342114  | N                                | -1.200506  | 0.344209               | 0.492977  |
| O | 0.971646  | 3.295486  | -0.104859 | H                                | -1.899102  | 0.811822               | 1.074333  |
| H | 1.644877  | 3.003081  | 0.537097  | C                                | -0.023121  | 1.091631               | 0.046425  |
| C | -1.357454 | 3.190371  | -0.542649 | H                                | 0.103078   | 0.917085               | -1.029712 |
| H | -1.204501 | 2.994957  | -1.610063 | C                                | -0.210226  | 2.610879               | 0.276675  |

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|   |           |           |           |                                     |            |           |           |  |
|---|-----------|-----------|-----------|-------------------------------------|------------|-----------|-----------|--|
| H | 0.323493  | 2.013074  | -2.017778 | H                                   | -2.321273  | 2.775022  | -0.235944 |  |
| C | -0.886977 | 3.049686  | -0.530112 | H                                   | -1.383449  | 4.274154  | -0.395722 |  |
| H | -1.592169 | 3.405700  | -1.292897 | H                                   | -1.383449  | 4.274154  | -0.395722 |  |
| H | -1.484513 | 2.769484  | 0.346068  | <u>Ac-(Ala)4-Tyr-(Ala)4-NHMe αR</u> |            |           |           |  |
| C | 0.851337  | 1.190160  | -0.156147 | C                                   | -9.264692  | -2.447086 | 1.750773  |  |
| O | 2.049922  | 1.378184  | -0.359628 | H                                   | -10.153438 | -1.819830 | 1.866856  |  |
| N | 0.402132  | 0.450845  | 0.893012  | H                                   | -8.837330  | -2.657933 | 2.734179  |  |
| H | -0.593760 | 0.324528  | 1.041540  | H                                   | -9.567618  | -3.405279 | 1.313889  |  |
| C | 1.340805  | -0.172558 | 1.821837  | C                                   | -8.198477  | -1.826226 | 0.870498  |  |
| H | 1.981635  | 0.599667  | 2.259152  | O                                   | -7.045875  | -2.254829 | 0.835101  |  |
| C | 0.579738  | -0.910861 | 2.927998  | N                                   | -8.582307  | -0.747885 | 0.114855  |  |
| H | -0.073252 | -0.221907 | 3.475438  | H                                   | -9.567772  | -0.519364 | 0.080441  |  |
| H | -0.029262 | -1.716909 | 2.503568  | C                                   | -7.749725  | -0.264953 | -0.990579 |  |
| H | 1.292745  | -1.347737 | 3.632459  | H                                   | -7.491903  | -1.106254 | -1.643878 |  |
| C | 2.325034  | -1.132453 | 1.122347  | C                                   | -8.503465  | 0.797386  | -1.798676 |  |
| O | 3.465906  | -1.276804 | 1.565223  | H                                   | -9.418292  | 0.378590  | -2.232565 |  |
| N | 1.861846  | -1.794412 | 0.036297  | H                                   | -8.770316  | 1.656763  | -1.173319 |  |
| H | 0.877135  | -1.731429 | -0.202978 | H                                   | -7.869174  | 1.149359  | -2.615795 |  |
| C | 2.697121  | -2.734531 | -0.702377 | C                                   | -6.392423  | 0.286563  | -0.529078 |  |
| H | 3.068985  | -3.506774 | -0.019890 | O                                   | -5.439244  | 0.304641  | -1.307913 |  |
| C | 1.878355  | -3.382211 | -1.825533 | N                                   | -6.313197  | 0.762122  | 0.737351  |  |
| H | 1.028254  | -3.933172 | -1.409122 | H                                   | -7.123046  | 0.675991  | 1.336662  |  |
| H | 1.496242  | -2.619825 | -2.513467 | C                                   | -5.059416  | 1.264037  | 1.287517  |  |
| H | 2.513451  | -4.076810 | -2.381490 | H                                   | -4.694217  | 2.071346  | 0.644979  |  |
| C | 3.973407  | -2.095467 | -1.284326 | C                                   | -5.274630  | 1.799385  | 2.706777  |  |
| O | 4.946124  | -2.815873 | -1.529177 | H                                   | -5.994911  | 2.624176  | 2.703451  |  |
| N | 3.951658  | -0.766274 | -1.533095 | H                                   | -5.640573  | 1.011802  | 3.376162  |  |
| H | 3.153474  | -0.206471 | -1.244391 | H                                   | -4.326410  | 2.170517  | 3.102610  |  |
| C | 5.119947  | -0.073819 | -2.065826 | C                                   | -3.926864  | 0.219213  | 1.274176  |  |
| H | 5.535460  | -0.696298 | -2.864980 | O                                   | -2.753734  | 0.614565  | 1.302257  |  |
| C | 4.721718  | 1.290998  | -2.635544 | N                                   | -4.262255  | -1.086639 | 1.247439  |  |
| H | 4.031834  | 1.168190  | -3.477137 | H                                   | -5.236965  | -1.370292 | 1.163936  |  |
| H | 4.228587  | 1.905628  | -1.875168 | C                                   | -3.229484  | -2.118754 | 1.175554  |  |
| H | 5.621682  | 1.805077  | -2.980936 | H                                   | -2.542615  | -1.983129 | 2.016056  |  |
| C | 6.293136  | 0.073759  | -1.067658 | C                                   | -3.860486  | -3.513305 | 1.249131  |  |
| O | 7.372476  | 0.491532  | -1.480129 | H                                   | -4.406321  | -3.639946 | 2.189386  |  |
| N | 6.058075  | -0.294261 | 0.218751  | H                                   | -4.559070  | -3.675995 | 0.422289  |  |
| H | 5.128593  | -0.593569 | 0.501352  | H                                   | -3.071351  | -4.267695 | 1.197518  |  |
| C | 7.113533  | -0.371206 | 1.217646  | C                                   | -2.339290  | -1.997393 | -0.078026 |  |
| H | 7.976434  | 0.145017  | 0.784528  | O                                   | -1.180246  | -2.413763 | -0.033339 |  |
| C | 6.696939  | 0.317656  | 2.521839  | N                                   | -2.895717  | -1.472193 | -1.197039 |  |
| H | 6.553551  | 1.390215  | 2.355304  | H                                   | -3.826271  | -1.063772 | -1.165725 |  |
| H | 5.755711  | -0.102535 | 2.894925  | C                                   | -2.103439  | -1.307368 | -2.414142 |  |
| H | 7.471099  | 0.164611  | 3.276986  | H                                   | -1.562227  | -2.239503 | -2.595368 |  |
| C | 7.584190  | -1.818377 | 1.501347  | C                                   | -3.013265  | -0.996374 | -3.607369 |  |
| O | 8.355414  | -2.046993 | 2.433196  | H                                   | -3.702135  | -1.827627 | -3.791553 |  |
| N | 7.123960  | -2.783636 | 0.670594  | H                                   | -3.602478  | -0.090251 | -3.430974 |  |
| H | 6.492720  | -2.557420 | -0.090492 | H                                   | -2.399295  | -0.848097 | -4.499653 |  |
| C | 7.532921  | -4.164988 | 0.833302  | C                                   | -0.995496  | -0.238773 | -2.282077 |  |
| H | 7.463075  | -4.457601 | 1.885548  | O                                   | 0.023907   | -0.324639 | -2.957547 |  |
| H | 6.872803  | -4.793963 | 0.231310  | N                                   | -1.251634  | 0.798076  | -1.433820 |  |
| H | 8.570307  | -4.323510 | 0.510638  | H                                   | -2.039895  | 0.721954  | -0.801302 |  |
| C | 0.085234  | 4.148301  | -0.157928 | C                                   | -0.219468  | 1.775695  | -1.100988 |  |

|   |            |           |           |   |           |           |           |
|---|------------|-----------|-----------|---|-----------|-----------|-----------|
| H | 4.298292   | -2.193598 | -1.941561 | C   | 0.736869  | 4.900192  | -1.142974 |
| H | 3.458710   | -2.938418 | -0.558141 | C   | 0.367754  | 4.440865  | 1.182810  |
| H | 2.526256   | -2.141453 | -1.844972 | C   | 1.641558  | 5.904648  | -0.806891 |
| C | 2.425345   | -0.586948 | 0.521263  | H   | 0.538968  | 4.699760  | -2.193778 |
| O | 2.642548   | -0.628296 | 1.734626  | C   | 1.267368  | 5.442533  | 1.537230  |
| N | 1.198483   | -0.396878 | -0.008707 | H   | -0.123260 | 3.870339  | 1.968080  |
| H | 1.029338   | -0.483328 | -1.007376 | C   | 1.911996  | 6.177646  | 0.538529  |
| C | -0.012500  | -0.391615 | 0.792520  | H   | 2.138430  | 6.475950  | -1.589154 |
| H | 0.084317   | -1.159266 | 1.571104  | H   | 1.486034  | 5.663324  | 2.577202  |
| C | -0.252528  | 0.966736  | 1.516393  | O   | 2.785261  | 7.152557  | 0.934785  |
| H | -1.076904  | 0.834985  | 2.228201  | H   | 3.203729  | 7.538899  | 0.149853  |
| H | 0.644498   | 1.148438  | 2.117445  | <b>Ac-(Ala)<sub>4</sub>-Tyr-(Ala)<sub>4</sub>-NHMe C5</b> |           |           |           |
| C | -1.154685  | -0.788630 | -0.163796 | C   | 17.916577 | -0.390830 | -0.771826 |
| O | -0.948331  | -0.964821 | -1.365385 | H   | 17.615656 | -0.084306 | -1.778384 |
| N | -2.369503  | -0.942672 | 0.408616  | H   | 18.371379 | -1.385210 | -0.822446 |
| H | -2.546938  | -0.632830 | 1.359749  | H   | 18.682402 | 0.298643  | -0.403173 |
| C | -3.576215  | -1.135758 | -0.379524 | C   | 16.766869 | -0.427457 | 0.225674  |
| H | -3.461676  | -0.583606 | -1.320580 | O   | 16.936700 | -0.737733 | 1.402124  |
| C | -3.815617  | -2.620449 | -0.705193 | N   | 15.547163 | -0.088815 | -0.274507 |
| H | -2.949972  | -3.008229 | -1.248641 | H   | 15.395016 | 0.084301  | -1.261804 |
| H | -3.946965  | -3.202651 | 0.212853  | C   | 14.338022 | -0.150920 | 0.523357  |
| H | -4.702444  | -2.757504 | -1.333222 | H   | 14.372040 | -1.060585 | 1.136273  |
| C | -4.726814  | -0.507612 | 0.432324  | C   | 14.200186 | 1.062843  | 1.463176  |
| O | -4.533893  | -0.042610 | 1.560269  | H   | 15.072656 | 1.098752  | 2.120046  |
| N | -5.932858  | -0.502745 | -0.169757 | H   | 14.148992 | 1.991349  | 0.884611  |
| H | -6.091577  | -0.939314 | -1.073343 | H   | 13.299682 | 0.987761  | 2.082881  |
| C | -7.141677  | -0.022341 | 0.479674  | C   | 13.160527 | -0.236474 | -0.462889 |
| H | -7.141569  | -0.373605 | 1.518453  | O   | 13.302599 | 0.014886  | -1.661635 |
| C | -7.230411  | 1.515272  | 0.476581  | N   | 11.973336 | -0.584747 | 0.081939  |
| H | -6.361361  | 1.925802  | 0.996660  | H   | 11.859970 | -0.731018 | 1.080549  |
| H | -7.245453  | 1.895820  | -0.549972 | C   | 10.731522 | -0.593640 | -0.671239 |
| H | -8.135112  | 1.859376  | 0.989181  | H   | 10.710772 | 0.290531  | -1.320239 |
| C | -8.317532  | -0.658305 | -0.285039 | C   | 10.596391 | -1.851791 | -1.549952 |
| O | -8.150881  | -1.181677 | -1.388880 | H   | 11.441465 | -1.894030 | -2.241463 |
| N | -9.517557  | -0.580027 | 0.327041  | H   | 10.597393 | -2.753951 | -0.929342 |
| H | -9.643599  | -0.099565 | 1.213335  | H   | 9.669650  | -1.830874 | -2.133779 |
| C | -10.755124 | -1.019475 | -0.296122 | C   | 9.596409  | -0.501394 | 0.364918  |
| H | -10.749269 | -0.701931 | -1.345898 | O   | 9.807277  | -0.694864 | 1.564130  |
| C | -10.918612 | -2.550229 | -0.243361 | N   | 8.375654  | -0.215515 | -0.136406 |
| H | -10.072097 | -3.017287 | -0.752641 | H   | 8.208356  | -0.122521 | -1.134215 |
| H | -10.946364 | -2.896759 | 0.794930  | C   | 7.168990  | -0.213738 | 0.673276  |
| H | -11.841086 | -2.866950 | -0.741712 | H   | 7.204663  | -1.072324 | 1.355047  |
| C | -11.890472 | -0.302560 | 0.457104  | C   | 7.034101  | 1.073219  | 1.508598  |
| O | -11.687789 | 0.253941  | 1.538555  | H   | 7.907284  | 1.169126  | 2.158588  |
| N | -13.102201 | -0.348504 | -0.136181 | H   | 6.977467  | 1.950097  | 0.855149  |
| H | -13.264645 | -0.854141 | -1.002181 | H   | 6.136177  | 1.046738  | 2.135486  |
| C | -14.305031 | 0.173930  | 0.489029  | C   | 5.993909  | -0.383020 | -0.308306 |
| H | -14.284463 | -0.092271 | 1.553222  | O   | 6.152548  | -0.247606 | -1.523789 |
| C | -14.401639 | 1.706344  | 0.363508  | N   | 4.803149  | -0.669516 | 0.257874  |
| H | -13.522332 | 2.159022  | 0.828255  | H   | 4.679291  | -0.715635 | 1.265359  |
| H | -14.442214 | 2.002241  | -0.689709 | C   | 3.565971  | -0.762052 | -0.499163 |
| H | -15.295638 | 2.091029  | 0.866738  | H   | 3.537383  | 0.059205  | -1.225787 |
| C | -15.488371 | -0.526571 | -0.204835 | C   | 3.450488  | -2.097039 | -1.258898 |

|   |           |           |           |  |            |           |           |
|---|-----------|-----------|-----------|--|------------|-----------|-----------|
| H | -5.314860 | 2.654466  | 1.328017  | O  | -15.336325 | -1.121809 | -1.269581 |
| C | -4.594492 | 0.088072  | 0.580123  | N  | -16.681933 | -0.408841 | 0.429822  |
| O | -3.866074 | 0.303253  | 1.555109  | H  | -16.710297 | 0.073480  | 1.317192  |
| N | -4.275034 | -0.774441 | -0.412561 | C  | -17.918931 | -0.963365 | -0.098201 |
| H | -4.968334 | -0.914300 | -1.149830 | H  | -18.325351 | -1.727969 | 0.573361  |
| C | -3.136410 | -1.694991 | -0.326309 | H  | -18.669776 | -0.178280 | -0.240254 |
| H | -3.032523 | -1.976095 | 0.729655  | H  | -17.689524 | -1.419835 | -1.061420 |
| C | -3.397718 | -2.932812 | -1.179015 | C  | -0.541761  | 2.141768  | 0.608798  |
| H | -4.320914 | -3.424046 | -0.856317 | C  | 0.494982   | 2.857881  | -0.002573 |
| H | -3.482632 | -2.666733 | -2.236571 | C  | -1.860290  | 2.548984  | 0.349550  |
| H | -2.569603 | -3.639516 | -1.085112 | C  | 0.232647   | 3.929643  | -0.855285 |
| C | -1.818284 | -0.997298 | -0.740876 | H  | 1.527241   | 2.581779  | 0.195257  |
| O | -1.181792 | -1.338278 | -1.743227 | C  | -2.138006  | 3.617928  | -0.497605 |
| N | -1.421472 | -0.006628 | 0.092745  | H  | -2.686325  | 2.023472  | 0.823486  |
| H | -2.036079 | 0.221800  | 0.876507  | C  | -1.088428  | 4.310821  | -1.108735 |
| C | -0.294223 | 0.877528  | -0.219877 | H  | 1.055163   | 4.474087  | -1.316474 |
| H | -0.267452 | 0.991320  | -1.309873 | H  | -3.158671  | 3.932806  | -0.691390 |
| C | -0.497748 | 2.250090  | 0.445176  | O  | -1.414111  | 5.354163  | -1.932138 |
| H | -1.549673 | 2.526022  | 0.301837  | H  | -0.598518  | 5.740702  | -2.286989 |
| H | -0.330079 | 2.143672  | 1.521561  | <u>Ac-(Ala)<sub>4</sub>-Tyr-(Ala)<sub>4</sub>-NHMe C7<sub>eq</sub></u> |            |           |           |
| C | 1.028900  | 0.204675  | 0.217833  | C  | -14.405369 | -1.735710 | -0.177375 |
| O | 1.667312  | 0.569173  | 1.211589  | H  | -14.765801 | -1.932250 | 0.836729  |
| N | 1.405408  | -0.831008 | -0.569298 | H  | -14.203724 | -2.686733 | -0.678449 |
| H | 0.745086  | -1.118278 | -1.293501 | H  | -15.196114 | -1.231272 | -0.742020 |
| C | 2.460037  | -1.774207 | -0.179878 | C  | -13.154028 | -0.879409 | -0.225048 |
| H | 2.437244  | -1.847009 | 0.915388  | O  | -12.577780 | -0.632579 | -1.287747 |
| C | 2.196150  | -3.140203 | -0.805964 | N  | -12.711033 | -0.390350 | 0.965740  |
| H | 1.206906  | -3.504853 | -0.512300 | H  | -13.182134 | -0.656933 | 1.819284  |
| H | 2.249179  | -3.084518 | -1.896939 | C  | -11.593304 | 0.554418  | 1.072852  |
| H | 2.950801  | -3.859186 | -0.477904 | H  | -11.645887 | 1.190872  | 0.181962  |
| C | 3.860686  | -1.243785 | -0.568827 | C  | -11.733348 | 1.397298  | 2.336040  |
| O | 4.562174  | -1.808875 | -1.414942 | H  | -12.691952 | 1.925470  | 2.334760  |
| N | 4.253994  | -0.140615 | 0.108365  | H  | -11.659882 | 0.774133  | 3.232835  |
| H | 3.580312  | 0.277684  | 0.751660  | H  | -10.927634 | 2.133407  | 2.389936  |
| C | 5.470775  | 0.603948  | -0.234183 | C  | -10.234130 | -0.186159 | 1.037201  |
| H | 5.594737  | 0.526541  | -1.321817 | O  | -9.493645  | -0.241220 | 2.024934  |
| C | 5.327830  | 2.065126  | 0.178041  | N  | -9.933918  | -0.748222 | -0.155884 |
| H | 4.446003  | 2.508283  | -0.294079 | H  | -10.644121 | -0.692542 | -0.888003 |
| H | 5.238567  | 2.153245  | 1.265033  | C  | -8.796475  | -1.656887 | -0.341675 |
| H | 6.215101  | 2.628347  | -0.122395 | H  | -8.673928  | -2.211124 | 0.597867  |
| C | 6.721816  | -0.038500 | 0.414939  | C  | -9.078813  | -2.619389 | -1.490893 |
| O | 7.382594  | 0.544147  | 1.281268  | H  | -9.995839  | -3.183337 | -1.294228 |
| N | 7.031539  | -1.267992 | -0.057391 | H  | -9.185805  | -2.078059 | -2.435293 |
| H | 6.397257  | -1.678183 | -0.744811 | H  | -8.249982  | -3.321431 | -1.608610 |
| C | 8.069486  | -2.108977 | 0.547252  | C  | -7.483570  | -0.871124 | -0.578514 |
| H | 8.074606  | -1.882671 | 1.621006  | O  | -6.864034  | -0.938084 | -1.645375 |
| C | 7.749313  | -3.582932 | 0.319445  | N  | -7.069142  | -0.133541 | 0.477765  |
| H | 6.763745  | -3.822926 | 0.730714  | H  | -7.668764  | -0.119095 | 1.304351  |
| H | 7.762636  | -3.823736 | -0.747493 | C  | -5.950609  | 0.811209  | 0.392672  |
| H | 8.499012  | -4.212045 | 0.805651  | H  | -5.958975  | 1.222801  | -0.624623 |
| C | 9.472577  | -1.749094 | -0.001103 | C  | -6.126676  | 1.928379  | 1.416335  |
| O | 10.128523 | -2.539505 | -0.688377 | H  | -7.079447  | 2.441723  | 1.253480  |
| N | 9.910431  | -0.518710 | 0.349236  | H  | -6.100884  | 1.531324  | 2.435238  |

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|   |           |           |           |  |           |           |           |
|---|-----------|-----------|-----------|--|-----------|-----------|-----------|
| O | 2.659377  | 0.523425  | -1.526179 | H  | 9.275913  | 0.066173  | 0.894054  |
| N | 4.104733  | -1.142686 | -0.973466 | C  | 11.139767 | 0.074487  | -0.190254 |
| H | 5.068797  | -1.426847 | -0.807552 | H  | 11.247497 | -0.303245 | -1.214376 |
| C | 3.034026  | -2.068373 | -0.607527 | C  | 11.027829 | 1.595295  | -0.194335 |
| H | 2.359915  | -2.178436 | -1.462043 | H  | 10.150504 | 1.911567  | -0.767970 |
| C | 3.613456  | -3.436447 | -0.231971 | H  | 10.951110 | 1.979630  | 0.826859  |
| H | 4.166183  | -3.864790 | -1.073958 | H  | 11.922297 | 2.036982  | -0.640814 |
| H | 4.295057  | -3.358036 | 0.620878  | C  | 12.383360 | -0.388775 | 0.615666  |
| H | 2.796512  | -4.113231 | 0.031203  | O  | 13.026926 | 0.381379  | 1.321440  |
| C | 2.139092  | -1.531162 | 0.527440  | N  | 12.682955 | -1.703864 | 0.439491  |
| O | 0.956099  | -1.874486 | 0.576388  | H  | 12.020107 | -2.260436 | -0.096972 |
| N | 2.714098  | -0.726097 | 1.454049  | C  | 13.756497 | -2.358271 | 1.162241  |
| H | 3.667652  | -0.396106 | 1.328340  | H  | 13.370916 | -3.050659 | 1.922395  |
| C | 1.917048  | -0.159117 | 2.539844  | H  | 14.400163 | -2.919679 | 0.475278  |
| H | 1.343878  | -0.966915 | 3.002153  | H  | 14.345836 | -1.584896 | 1.657351  |
| C | 2.825503  | 0.497233  | 3.584989  | C  | 0.392802  | 3.339584  | -0.117212 |
| H | 3.493772  | -0.245898 | 4.032778  | C  | 1.558841  | 3.744198  | 0.541455  |
| H | 3.436042  | 1.288780  | 3.138217  | C  | 0.063792  | 3.980120  | -1.321931 |
| H | 2.209862  | 0.933220  | 4.376257  | C  | 2.369235  | 4.754343  | 0.020983  |
| C | 0.847050  | 0.838937  | 2.047757  | H  | 1.841163  | 3.255453  | 1.468705  |
| O | -0.202431 | 0.975185  | 2.665681  | C  | 0.863683  | 4.984696  | -1.857565 |
| N | 1.167739  | 1.580650  | 0.946103  | H  | -0.842757 | 3.692066  | -1.850952 |
| H | 1.958319  | 1.295295  | 0.378486  | C  | 2.024463  | 5.377120  | -1.182378 |
| C | 0.169714  | 2.450487  | 0.331129  | H  | 3.267372  | 5.060793  | 0.554876  |
| H | -0.362291 | 2.970623  | 1.129275  | H  | 0.602877  | 5.479166  | -2.788009 |
| C | 0.874069  | 3.467705  | -0.584286 | O  | 2.775021  | 6.373479  | -1.743856 |
| H | 1.676402  | 3.948726  | -0.016720 | H  | 3.543806  | 6.544914  | -1.177960 |
| H | 1.326295  | 2.956955  | -1.440110 | Ac-(Ala) <sub>4</sub> -Cys-(Ala) <sub>4</sub> -NHMe_αR |           |           |           |
| C | -0.913229 | 1.655335  | -0.430676 | C  | 9.040906  | -2.782551 | -1.055468 |
| O | -2.094233 | 2.009401  | -0.403449 | H  | 9.943468  | -2.247328 | -1.364881 |
| N | -0.496816 | 0.573518  | -1.134446 | H  | 8.590080  | -3.268444 | -1.924149 |
| H | 0.487133  | 0.327508  | -1.159589 | H  | 9.327353  | -3.571684 | -0.351069 |
| C | -1.454041 | -0.260566 | -1.856577 | C  | 8.008097  | -1.891511 | -0.395055 |
| H | -2.040764 | 0.371168  | -2.530488 | O  | 6.840731  | -2.246372 | -0.236168 |
| C | -0.719553 | -1.341872 | -2.655741 | N  | 8.439541  | -0.656094 | 0.014883  |
| H | -0.028491 | -0.888040 | -3.374640 | H  | 9.432980  | -0.464915 | -0.019392 |
| H | -0.155520 | -1.998997 | -1.984624 | C  | 7.636649  | 0.157623  | 0.932408  |
| H | -1.446586 | -1.945654 | -3.205555 | H  | 7.351165  | -0.450252 | 1.798427  |
| C | -2.501904 | -0.901056 | -0.924053 | C  | 8.439339  | 1.375183  | 1.404352  |
| O | -3.640769 | -1.125035 | -1.336698 | H  | 9.338170  | 1.060828  | 1.946236  |
| N | -2.097256 | -1.198728 | 0.333723  | H  | 8.738756  | 2.005871  | 0.559699  |
| H | -1.114757 | -1.113738 | 0.575476  | H  | 7.825635  | 1.974427  | 2.081238  |
| C | -2.998212 | -1.824806 | 1.295669  | C  | 6.297903  | 0.606527  | 0.327313  |
| H | -3.403581 | -2.747823 | 0.866857  | O  | 5.352208  | 0.885254  | 1.064610  |
| C | -2.237770 | -2.140713 | 2.588954  | N  | 6.226059  | 0.697760  | -1.022930 |
| H | -1.420683 | -2.842698 | 2.389616  | H  | 7.027666  | 0.411998  | -1.569198 |
| H | -1.814674 | -1.227656 | 3.021958  | C  | 4.986445  | 1.062319  | -1.698505 |
| H | -2.923232 | -2.592698 | 3.310557  | H  | 4.655088  | 2.034746  | -1.320772 |
| C | -4.244058 | -0.972565 | 1.608473  | C  | 5.206976  | 1.150972  | -3.212041 |
| O | -5.263314 | -1.528662 | 2.026417  | H  | 5.956800  | 1.912931  | -3.449123 |
| N | -4.143691 | 0.365869  | 1.435753  | H  | 5.537243  | 0.188760  | -3.620947 |
| H | -3.303077 | 0.760655  | 1.025430  | H  | 4.269209  | 1.425945  | -3.700418 |
| C | -5.272067 | 1.256829  | 1.683625  | C  | 3.818167  | 0.109659  | -1.382051 |

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|   |            |           |           |  |           |           |           |  |
|---|------------|-----------|-----------|--|-----------|-----------|-----------|--|
| H | 8.161276   | -0.975421 | -0.951200 | H  | -5.747829 | 0.932246  | 2.614836  |  |
| C | 7.124129   | 0.553680  | 0.021790  | C  | -4.789991 | 2.702726  | 1.832574  |  |
| H | 7.126377   | 0.701780  | 1.108609  | H  | -4.134126 | 2.800929  | 2.703939  |  |
| C | 7.049618   | 1.931129  | -0.663561 | H  | -4.233441 | 3.024702  | 0.945866  |  |
| H | 7.930275   | 2.515517  | -0.385772 | H  | -5.657960 | 3.353147  | 1.961830  |  |
| H | 7.025848   | 1.816633  | -1.752305 | C  | -6.408307 | 1.165432  | 0.637176  |  |
| H | 6.155369   | 2.481516  | -0.351376 | O  | -7.457885 | 1.767234  | 0.849114  |  |
| C | 5.937296   | -0.342939 | -0.376114 | N  | -6.178648 | 0.392549  | -0.456554 |  |
| O | 6.090838   | -1.313986 | -1.120015 | H  | -5.271389 | -0.045336 | -0.590306 |  |
| N | 4.739748   | 0.022577  | 0.128983  | C  | -7.215150 | 0.084495  | -1.430572 |  |
| H | 4.623830   | 0.857025  | 0.696539  | H  | -8.036477 | 0.779178  | -1.227268 |  |
| C | 3.495822   | -0.639313 | -0.226462 | C  | -6.709516 | 0.283573  | -2.863766 |  |
| H | 3.495722   | -0.826670 | -1.307372 | H  | -6.475091 | 1.338358  | -3.040424 |  |
| C | 3.323305   | -1.982930 | 0.506943  | H  | -5.801670 | -0.305873 | -3.036779 |  |
| H | 4.163894   | -2.634982 | 0.257656  | H  | -7.477805 | -0.043229 | -3.567919 |  |
| H | 3.300075   | -1.828044 | 1.590631  | C  | -7.810580 | -1.334637 | -1.264139 |  |
| H | 2.395958   | -2.481932 | 0.206047  | O  | -8.587534 | -1.781972 | -2.107307 |  |
| C | 2.368460   | 0.347884  | 0.124869  | N  | -7.446924 | -2.022286 | -0.155285 |  |
| O | 2.583100   | 1.347178  | 0.815324  | H  | -6.810324 | -1.614894 | 0.520653  |  |
| N | 1.147042   | 0.032900  | -0.357242 | C  | -7.978591 | -3.344249 | 0.112941  |  |
| H | 0.967859   | -0.814682 | -0.889796 | H  | -7.965738 | -3.944713 | -0.801445 |  |
| C | -0.050519  | 0.780430  | -0.013978 | H  | -7.357933 | -3.820022 | 0.876094  |  |
| H | -0.023980  | 1.025536  | 1.053468  | H  | -9.015599 | -3.302472 | 0.471636  |  |
| C | -0.104463  | 2.102182  | -0.822138 | S  | -0.195332 | 4.852823  | -1.154244 |  |
| H | 0.886893   | 2.556533  | -0.800712 | H  | -1.283761 | 4.109148  | -1.446046 |  |
| H | -0.365026  | 1.898106  | -1.864773 | Ac-(Ala) <sub>4</sub> -Cys-(Ala) <sub>4</sub> -NHMe_C5 |           |           |           |  |
| C | -1.232777  | -0.165883 | -0.322021 | C  | 17.839674 | -1.147551 | -0.024355 |  |
| O | -1.054356  | -1.168471 | -1.021147 | H  | 17.558088 | -1.839056 | -0.824505 |  |
| N | -2.423605  | 0.167308  | 0.208086  | H  | 18.226888 | -1.721151 | 0.823676  |  |
| H | -2.562722  | 1.041766  | 0.710667  | H  | 18.650745 | -0.503897 | -0.378925 |  |
| C | -3.631829  | -0.604939 | -0.047145 | C  | 16.692502 | -0.271223 | 0.459249  |  |
| H | -3.673169  | -0.849201 | -1.115403 | O  | 16.842660 | 0.564264  | 1.347237  |  |
| C | -3.658209  | -1.915239 | 0.762458  | N  | 15.498618 | -0.473387 | -0.162399 |  |
| H | -2.785923  | -2.518988 | 0.500792  | H  | 15.355750 | -1.220249 | -0.832890 |  |
| H | -3.637413  | -1.699439 | 1.835658  | C  | 14.291204 | 0.224112  | 0.235368  |  |
| H | -4.561397  | -2.493489 | 0.540239  | H  | 14.264300 | 0.274931  | 1.331246  |  |
| C | -4.816598  | 0.300351  | 0.331839  | C  | 14.243230 | 1.661895  | -0.318016 |  |
| O | -4.663483  | 1.278383  | 1.064058  | H  | 15.119315 | 2.206154  | 0.042972  |  |
| N | -6.013006  | -0.075595 | -0.169998 | H  | 14.254156 | 1.651689  | -1.413119 |  |
| H | -6.128165  | -0.915070 | -0.730638 | H  | 13.343004 | 2.189066  | 0.017140  |  |
| C | -7.259237  | 0.582129  | 0.184909  | C  | 13.106529 | -0.615771 | -0.271525 |  |
| H | -7.255248  | 0.779447  | 1.264007  | O  | 13.260370 | -1.515202 | -1.100751 |  |
| C | -7.441582  | 1.917928  | -0.560166 | N  | 11.900527 | -0.284993 | 0.242287  |  |
| H | -6.603662  | 2.577142  | -0.320751 | H  | 11.781428 | 0.495487  | 0.881053  |  |
| H | -7.468343  | 1.752371  | -1.642230 | C  | 10.659159 | -0.893401 | -0.202395 |  |
| H | -8.370884  | 2.414328  | -0.260548 | H  | 10.686739 | -0.985403 | -1.295218 |  |
| C | -8.382130  | -0.415763 | -0.153798 | C  | 10.451471 | -2.294228 | 0.404296  |  |
| O | -8.164256  | -1.411413 | -0.847726 | H  | 11.293352 | -2.931525 | 0.122999  |  |
| N | -9.599282  | -0.109868 | 0.343246  | H  | 10.398204 | -2.233972 | 1.496344  |  |
| H | -9.771283  | 0.743007  | 0.867782  | H  | 9.528422  | -2.753947 | 0.034716  |  |
| C | -10.796296 | -0.872276 | 0.030071  | C  | 9.532342  | 0.072677  | 0.206622  |  |
| H | -10.782727 | -1.120088 | -1.038378 | O  | 9.734786  | 0.993681  | 1.000665  |  |
| C | -10.878724 | -2.180224 | 0.839408  | N  | 8.325548  | -0.175739 | -0.346666 |  |

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|   |           |           |           |  |            |           |           |  |
|---|-----------|-----------|-----------|--|------------|-----------|-----------|--|
| H | -5.801137 | 1.229661  | -1.166316 | H  | -9.997057  | -2.788543 | 0.623490  |  |
| C | -5.991908 | 2.544682  | 0.544126  | H  | -10.910519 | -1.965210 | 1.912580  |  |
| H | -6.945608 | 2.973503  | 0.221396  | H  | -11.771432 | -2.756157 | 0.572551  |  |
| H | -5.971537 | 2.491835  | 1.636381  | C  | -11.986573 | 0.056859  | 0.330386  |  |
| H | -5.183198 | 3.210743  | 0.233244  | O  | -11.840406 | 1.093840  | 0.981179  |  |
| C | -4.453362 | 0.536839  | 0.351873  | N  | -13.180249 | -0.354650 | -0.147662 |  |
| O | -3.748114 | 1.035894  | 1.236317  | H  | -13.294683 | -1.236006 | -0.639680 |  |
| N | -4.110695 | -0.578089 | -0.334591 | C  | -14.423710 | 0.341071  | 0.135044  |  |
| H | -4.795691 | -0.940159 | -1.001035 | H  | -14.420265 | 0.641398  | 1.190400  |  |
| C | -2.982466 | -1.433070 | 0.050639  | C  | -14.591922 | 1.599698  | -0.737448 |  |
| H | -2.916469 | -1.403802 | 1.146241  | H  | -13.752361 | 2.275199  | -0.556120 |  |
| C | -3.222303 | -2.862227 | -0.425911 | H  | -14.611871 | 1.329725  | -1.798194 |  |
| H | -4.161383 | -3.244109 | -0.013602 | H  | -15.520310 | 2.129764  | -0.497030 |  |
| H | -3.265102 | -2.906752 | -1.517936 | C  | -15.552070 | -0.676906 | -0.116000 |  |
| H | -2.404525 | -3.511244 | -0.103652 | O  | -15.340985 | -1.717358 | -0.735662 |  |
| C | -1.644448 | -0.878470 | -0.496393 | N  | -16.767829 | -0.322623 | 0.371732  |  |
| O | -0.968127 | -1.492426 | -1.327291 | H  | -16.846146 | 0.542286  | 0.888083  |  |
| N | -1.273975 | 0.313309  | 0.031136  | C  | -17.962257 | -1.133019 | 0.190250  |  |
| H | -1.923945 | 0.753637  | 0.686800  | H  | -18.380264 | -1.434976 | 1.156901  |  |
| C | -0.138414 | 1.082414  | -0.489060 | H  | -18.726557 | -0.586226 | -0.373394 |  |
| H | -0.081453 | 0.899223  | -1.567999 | H  | -17.673262 | -2.023570 | -0.368529 |  |
| C | -0.377802 | 2.571686  | -0.228226 | S  | -1.328585  | 3.335179  | -0.216157 |  |
| H | -1.371848 | 2.840511  | -0.595982 | H  | -0.595554  | 3.767278  | 0.832973  |  |
| H | -0.338259 | 2.783664  | 0.842752  | Ac-(Ala)4-Cys-(Ala)4-NHMe_C7 <sub>eq</sub> |            |           |           |  |
| C | 1.184922  | 0.591717  | 0.145749  | C  | -14.273214 | -1.400413 | 0.047508  |  |
| O | 1.837132  | 1.289047  | 0.933656  | H  | -14.661788 | -1.225580 | 1.055136  |  |
| N | 1.553522  | -0.652035 | -0.230075 | H  | -14.075990 | -2.468394 | -0.082075 |  |
| H | 0.909691  | -1.163350 | -0.836873 | H  | -15.040842 | -1.120382 | -0.681071 |  |
| C | 2.655470  | -1.381531 | 0.407162  | C  | -13.006675 | -0.624637 | -0.261195 |  |
| H | 2.680863  | -1.065972 | 1.457945  | O  | -12.403997 | -0.766195 | -1.328487 |  |
| C | 2.412695  | -2.884553 | 0.311934  | N  | -12.580578 | 0.242571  | 0.697868  |  |
| H | 1.454327  | -3.142095 | 0.773397  | H  | -13.074380 | 0.292781  | 1.578338  |  |
| H | 2.410127  | -3.212715 | -0.731385 | C  | -11.450363 | 1.157024  | 0.499613  |  |
| H | 3.209886  | -3.428933 | 0.823889  | H  | -11.477526 | 1.450873  | -0.556066 |  |
| C | 4.017265  | -0.994329 | -0.218878 | C  | -11.599787 | 2.381980  | 1.395597  |  |
| O | 4.701228  | -1.805872 | -0.850760 | H  | -12.549529 | 2.886732  | 1.192610  |  |
| N | 4.393704  | 0.286688  | 0.000961  | H  | -11.552841 | 2.101595  | 2.452536  |  |
| H | 3.741998  | 0.886412  | 0.507810  | H  | -10.783745 | 3.085471  | 1.213472  |  |
| C | 5.557562  | 0.893273  | -0.654457 | C  | -10.102075 | 0.437930  | 0.749759  |  |
| H | 5.638810  | 0.430317  | -1.645908 | O  | -9.385240  | 0.712940  | 1.718116  |  |
| C | 5.358989  | 2.399419  | -0.790568 | N  | -9.782842  | -0.493142 | -0.177812 |  |
| H | 4.446058  | 2.608987  | -1.357154 | H  | -10.479392 | -0.687601 | -0.899362 |  |
| H | 5.294237  | 2.874282  | 0.193015  | C  | -8.649312  | -1.412178 | -0.021722 |  |
| H | 6.208232  | 2.847286  | -1.312288 | H  | -8.553391  | -1.622262 | 1.051329  |  |
| C | 6.862207  | 0.564843  | 0.112217  | C  | -8.912309  | -2.701983 | -0.792650 |  |
| O | 7.526969  | 1.437114  | 0.680075  | H  | -9.840409  | -3.166092 | -0.445130 |  |
| N | 7.209752  | -0.743037 | 0.090362  | H  | -8.988817  | -2.505459 | -1.865846 |  |
| H | 6.571439  | -1.390042 | -0.374768 | H  | -8.089000  | -3.405321 | -0.646420 |  |
| C | 8.308903  | -1.282679 | 0.897118  | C  | -7.326760  | -0.747175 | -0.474725 |  |
| H | 8.346585  | -0.688056 | 1.818490  | O  | -6.692059  | -1.150573 | -1.454817 |  |
| C | 8.048693  | -2.749456 | 1.225417  | N  | -6.923572  | 0.288240  | 0.298621  |  |
| H | 7.092793  | -2.855557 | 1.748033  | H  | -7.541701  | 0.572498  | 1.060491  |  |
| H | 8.030744  | -3.354994 | 0.314678  | C  | -5.804708  | 1.161365  | -0.071016 |  |

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|   |           |           |           |   |           |           |           |
|---|-----------|-----------|-----------|---|-----------|-----------|-----------|
| H | 4.197664  | -3.218907 | -2.404541 | H   | 8.845789  | -3.141133 | 1.862254  |
| H | 4.380874  | -3.429361 | -0.653216 | C   | 9.668842  | -1.102158 | 0.178694  |
| H | 2.858006  | -3.891032 | -1.447818 | O   | 10.322718 | -2.066534 | -0.233196 |
| C | 2.231355  | -1.727597 | 0.050511  | N   | 10.072290 | 0.182817  | 0.059342  |
| O | 1.064578  | -2.120586 | -0.005470 | H   | 9.438130  | 0.905904  | 0.399929  |
| N | 2.813757  | -1.295374 | 1.195472  | C   | 11.246389 | 0.580825  | -0.727184 |
| H | 3.758105  | -0.918932 | 1.182372  | H   | 11.317012 | -0.124335 | -1.564403 |
| C | 2.038575  | -1.194273 | 2.429844  | C   | 11.069687 | 2.004140  | -1.245098 |
| H | 1.492109  | -2.130694 | 2.568447  | H   | 10.152199 | 2.083711  | -1.837254 |
| C | 2.965820  | -0.952860 | 3.625728  | H   | 11.027825 | 2.715169  | -0.414940 |
| H | 3.656877  | -1.793013 | 3.751574  | H   | 11.921215 | 2.284993  | -1.869888 |
| H | 3.553438  | -0.038282 | 3.493548  | C   | 12.549413 | 0.451053  | 0.107471  |
| H | 2.365567  | -0.855895 | 4.534295  | O   | 13.199492 | 1.430927  | 0.457462  |
| C | 0.936664  | -0.113603 | 2.370084  | N   | 12.891206 | -0.836835 | 0.380571  |
| O | -0.087677 | -0.246222 | 3.030786  | H   | 12.224884 | -1.558543 | 0.112267  |
| N | 1.200933  | 0.987793  | 1.607566  | C   | 14.030935 | -1.177635 | 1.210039  |
| H | 1.980296  | 0.956790  | 0.959267  | H   | 13.719491 | -1.563083 | 2.190031  |
| C | 0.162625  | 1.982724  | 1.359872  | H   | 14.653229 | -1.935422 | 0.720322  |
| H | -0.400780 | 2.097029  | 2.288563  | H   | 14.618329 | -0.270345 | 1.359413  |
| C | 0.805910  | 3.332218  | 0.983340  | S   | 0.787270  | 3.689379  | -1.103317 |
| H | 1.421292  | 3.638663  | 1.838821  | H   | 1.841219  | 3.433725  | -0.302045 |
| H | 1.489816  | 3.190753  | 0.136660  | <u>Ac-(Ala)<sub>4</sub>-Met-(Ala)<sub>4</sub>-NHMe αR</u> |           |           |           |
| C | -0.889365 | 1.490601  | 0.344069  | C   | 9.080185  | -2.205357 | -2.154521 |
| O | -2.088501 | 1.725899  | 0.525480  | H   | 9.983272  | -1.593496 | -2.237623 |
| N | -0.443648 | 0.760609  | -0.705513 | H   | 8.600138  | -2.280032 | -3.133362 |
| H | 0.553444  | 0.668111  | -0.870112 | H   | 9.370562  | -3.218569 | -1.854763 |
| C | -1.375953 | 0.259654  | -1.710185 | C   | 8.078206  | -1.668971 | -1.151670 |
| H | -1.965828 | 1.093554  | -2.103777 | O   | 6.914542  | -2.065975 | -1.111196 |
| C | -0.614330 | -0.426312 | -2.848811 | N   | 8.533825  | -0.704496 | -0.289610 |
| H | 0.079867  | 0.274945  | -3.325063 | H   | 9.527007  | -0.509747 | -0.277542 |
| H | -0.051463 | -1.286940 | -2.470937 | C   | 7.769603  | -0.337917 | 0.906076  |
| H | -1.324160 | -0.778001 | -3.602550 | H   | 7.501912  | -1.247268 | 1.455940  |
| C | -2.414269 | -0.704893 | -1.105253 | C   | 8.602454  | 0.578675  | 1.809362  |
| O | -3.551364 | -0.771289 | -1.575778 | H   | 9.511682  | 0.068986  | 2.146887  |
| N | -1.997467 | -1.461336 | -0.062096 | H   | 8.886801  | 1.499458  | 1.287601  |
| H | -1.016802 | -1.445054 | 0.201574  | H   | 8.015768  | 0.849080  | 2.690558  |
| C | -2.879096 | -2.421277 | 0.591123  | C   | 6.418870  | 0.320100  | 0.584338  |
| H | -3.268371 | -3.124853 | -0.153065 | O   | 5.506108  | 0.280223  | 1.409157  |
| C | -2.102704 | -3.181924 | 1.672798  | N   | 6.301898  | 0.945048  | -0.612581 |
| H | -1.271029 | -3.737408 | 1.226173  | H   | 7.079647  | 0.900292  | -1.257407 |
| H | -1.696761 | -2.487730 | 2.417162  | C   | 5.046238  | 1.550504  | -1.040824 |
| H | -2.772550 | -3.887041 | 2.171712  | H   | 4.736491  | 2.281050  | -0.286848 |
| C | -4.139319 | -1.777801 | 1.202008  | C   | 5.222272  | 2.254973  | -2.389922 |
| O | -5.143942 | -2.473082 | 1.379084  | H   | 5.972268  | 3.049344  | -2.315703 |
| N | -4.066968 | -0.472091 | 1.550550  | H   | 5.530687  | 1.547815  | -3.169110 |
| H | -3.244379 | 0.073082  | 1.307464  | H   | 4.272551  | 2.702518  | -2.691842 |
| C | -5.211695 | 0.228815  | 2.120397  | C   | 3.877065  | 0.549550  | -1.108031 |
| H | -5.685106 | -0.450592 | 2.836845  | O   | 2.719545  | 0.987881  | -1.062482 |
| C | -4.759434 | 1.499458  | 2.845299  | N   | 4.163075  | -0.762745 | -1.223671 |
| H | -4.111020 | 1.247940  | 3.691067  | H   | 5.128815  | -1.086202 | -1.207251 |
| H | -4.202433 | 2.158465  | 2.170642  | C   | 3.095530  | -1.761361 | -1.226576 |
| H | -5.640777 | 2.029951  | 3.212777  | H   | 2.399183  | -1.523884 | -2.036157 |
| C | -6.342991 | 0.545117  | 1.112694  | C   | 3.673612  | -3.163582 | -1.445286 |

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|   |           |           |           |   |            |           |           |
|---|-----------|-----------|-----------|---|------------|-----------|-----------|
| H | -8.242419 | -0.800204 | 1.126172  | O   | -7.395145  | 1.020730  | 1.532582  |
| C | -7.122737 | 0.193107  | -0.329266 | N   | -6.108994  | 0.240730  | -0.190591 |
| H | -7.064044 | -0.119262 | -1.379046 | H   | -5.197505  | -0.106022 | -0.477702 |
| C | -7.053752 | 1.730747  | -0.267072 | C   | -7.146815  | 0.302388  | -1.208919 |
| H | -7.903001 | 2.148159  | -0.813579 | H   | -7.982109  | 0.845718  | -0.755429 |
| H | -7.094290 | 2.073862  | 0.771970  | C   | -6.660635  | 1.045760  | -2.457941 |
| H | -6.130393 | 2.105178  | -0.722016 | H   | -6.458823  | 2.095363  | -2.220103 |
| C | -5.978986 | -0.458853 | 0.469575  | H   | -5.737490  | 0.594189  | -2.839231 |
| O | -6.194679 | -1.042865 | 1.533900  | H   | -7.425794  | 0.987537  | -3.235125 |
| N | -4.747927 | -0.327089 | -0.068275 | C   | -7.706076  | -1.088623 | -1.595970 |
| H | -4.581603 | 0.212473  | -0.913014 | O   | -8.475615  | -1.201719 | -2.549808 |
| C | -3.538738 | -0.768347 | 0.606516  | N   | -7.320267  | -2.135528 | -0.828272 |
| H | -3.621627 | -0.515130 | 1.670622  | H   | -6.690127  | -1.999725 | -0.045406 |
| C | -3.324632 | -2.287788 | 0.475949  | C   | -7.810628  | -3.475294 | -1.086877 |
| H | -4.187949 | -2.807207 | 0.899293  | H   | -7.806019  | -3.671503 | -2.162911 |
| H | -3.218353 | -2.570663 | -0.576480 | H   | -7.157715  | -4.188449 | -0.577813 |
| H | -2.427112 | -2.608586 | 1.015643  | H   | -8.838462  | -3.612200 | -0.725122 |
| C | -2.381747 | 0.027060  | -0.026151 | C   | -0.210697  | 4.444076  | 0.665755  |
| O | -2.536283 | 0.653002  | -1.076781 | H   | -1.141920  | 4.279729  | 1.215886  |
| N | -1.205202 | -0.032976 | 0.633635  | H   | 0.192073   | 5.414438  | 0.970467  |
| H | -1.093332 | -0.552956 | 1.498203  | S   | -0.626303  | 4.524018  | -1.132386 |
| C | 0.007659  | 0.609478  | 0.150348  | C   | -2.442637  | 4.729436  | -1.065342 |
| H | 0.040204  | 0.505990  | -0.940134 | H   | -2.791107  | 4.771229  | -2.100957 |
| C | 0.014697  | 2.119475  | 0.515590  | H   | -2.897590  | 3.870511  | -0.565952 |
| H | -0.959273 | 2.520719  | 0.220503  | H   | -2.722520  | 5.660425  | -0.564306 |
| H | 0.091515  | 2.207608  | 1.605859  | <u>Ac-(Ala)<sub>4</sub>-Met-(Ala)<sub>4</sub>-NHMe C5</u> |            |           |           |
| C | 1.171736  | -0.149851 | 0.808907  | C   | -17.883940 | -1.098701 | -0.009601 |
| O | 1.020928  | -0.700459 | 1.901921  | H   | -17.640703 | -1.411073 | 1.010666  |
| N | 2.338845  | -0.152368 | 0.130875  | H   | -18.292253 | -1.953565 | -0.557742 |
| H | 2.460743  | 0.364471  | -0.735457 | H   | -18.665865 | -0.333806 | 0.029182  |
| C | 3.572214  | -0.691806 | 0.680612  | C   | -16.693030 | -0.545495 | -0.780226 |
| H | 3.616583  | -0.436615 | 1.746326  | O   | -16.794835 | -0.153046 | -1.939867 |
| C | 3.646628  | -2.222835 | 0.536750  | N   | -15.517873 | -0.509715 | -0.094493 |
| H | 2.793791  | -2.671322 | 1.052516  | H   | -15.416907 | -0.914864 | 0.829364  |
| H | 3.616961  | -2.512332 | -0.518862 | C   | -14.275258 | -0.084382 | -0.708921 |
| H | 4.565914  | -2.619980 | 0.980346  | H   | -14.229980 | -0.498573 | -1.724193 |
| C | 4.717549  | 0.019248  | -0.066681 | C   | -14.171838 | 1.450241  | -0.806172 |
| O | 4.492622  | 0.720005  | -1.056801 | H   | -15.017052 | 1.822619  | -1.390102 |
| N | 5.954100  | -0.187314 | 0.430125  | H   | -14.200180 | 1.900593  | 0.191772  |
| H | 6.129689  | -0.821749 | 1.204405  | H   | -13.243898 | 1.757557  | -1.301159 |
| C | 7.157773  | 0.317190  | -0.210560 | C   | -13.136248 | -0.675285 | 0.139585  |
| H | 7.057474  | 0.183396  | -1.294490 | O   | -13.343478 | -1.149652 | 1.258642  |
| C | 7.387617  | 1.811248  | 0.083882  | N   | -11.907460 | -0.619906 | -0.421503 |
| H | 6.525568  | 2.382490  | -0.269518 | H   | -11.742942 | -0.171650 | -1.317791 |
| H | 7.509208  | 1.975864  | 1.159583  | C   | -10.700901 | -1.019446 | 0.281438  |
| H | 8.281903  | 2.182459  | -0.428053 | H   | -10.768743 | -0.667499 | 1.318065  |
| C | 8.316457  | -0.552715 | 0.312481  | C   | -10.517339 | -2.548999 | 0.292382  |
| O | 8.165686  | -1.300308 | 1.281425  | H   | -11.385941 | -3.008139 | 0.770959  |
| N | 9.484208  | -0.421281 | -0.350292 | H   | -10.429521 | -2.931175 | -0.730026 |
| H | 9.605945  | 0.246481  | -1.106445 | H   | -9.619769  | -2.836836 | 0.850627  |
| C | 10.711208 | -1.079371 | 0.067416  | C   | -9.531515  | -0.314657 | -0.429866 |
| H | 10.790655 | -1.009960 | 1.159262  | O   | -9.675127  | 0.199458  | -1.541139 |
| C | 10.737806 | -2.565250 | -0.336859 | N   | -8.357790  | -0.321281 | 0.237759  |

|   |           |           |           |  |           |                        |           |
|---|-----------|-----------|-----------|--|-----------|------------------------|-----------|
| H | 8.120957  | -3.417800 | 1.095185  | H  | 9.885037  | -3.074617              | 0.118623  |
| C | 7.402259  | -0.813262 | 0.475760  | H  | 10.675032 | -2.667341              | -1.425215 |
| O | 6.784653  | -1.018922 | 1.525729  | H  | 11.656243 | -3.053251              | 0.006468  |
| N | 6.997428  | 0.071290  | -0.465380 | C  | 11.861576 | -0.289986              | -0.584742 |
| H | 7.603231  | 0.200099  | -1.277432 | O  | 11.645705 | 0.538208               | -1.472354 |
| C | 5.900499  | 1.018626  | -0.240311 | N  | 13.098961 | -0.582271              | -0.131005 |
| H | 5.922903  | 1.284255  | 0.824301  | H  | 13.268019 | -1.308834              | 0.558550  |
| C | 6.098442  | 2.262570  | -1.100847 | C  | 14.303419 | -0.016708              | -0.714087 |
| H | 7.066045  | 2.723581  | -0.879522 | H  | 14.178048 | 0.012672               | -1.803558 |
| H | 6.054151  | 2.011154  | -2.164397 | C  | 14.572766 | 1.412975               | -0.207355 |
| H | 5.307583  | 2.990422  | -0.903536 | H  | 13.718039 | 2.047326               | -0.454996 |
| C | 4.528080  | 0.357791  | -0.516904 | H  | 14.716211 | 1.413335               | 0.877942  |
| O | 3.804693  | 0.718127  | -1.452443 | H  | 15.467011 | 1.839330               | -0.675400 |
| N | 4.191511  | -0.621610 | 0.353834  | C  | 15.451484 | -0.974216              | -0.343028 |
| H | 4.884957  | -0.874028 | 1.060493  | O  | 15.313762 | -1.815061              | 0.543056  |
| C | 3.025934  | -1.491697 | 0.160752  | N  | 16.600959 | -0.794910              | -1.041449 |
| H | 2.912510  | -1.639121 | -0.920887 | H  | 16.616838 | -0.095846              | -1.770774 |
| C | 3.251201  | -2.830243 | 0.856402  | C  | 17.806886 | -1.571190              | -0.797208 |
| H | 4.161768  | -3.303957 | 0.476676  | H  | 18.093954 | -2.140083              | -1.688522 |
| H | 3.338843  | -2.696388 | 1.938339  | H  | 18.639375 | -0.921099              | -0.505812 |
| H | 2.404713  | -3.497602 | 0.676472  | H  | 17.591511 | -2.265001              | 0.015798  |
| C | 1.732810  | -0.807054 | 0.667444  | C  | 1.111970  | 2.934851               | -0.176957 |
| O | 1.112006  | -1.219337 | 1.652316  | H  | 2.116909  | 2.572876               | 0.065017  |
| N | 1.346348  | 0.263046  | -0.066272 | H  | 0.999403  | 2.868615               | -1.265658 |
| H | 1.961403  | 0.550486  | -0.829292 | S  | 1.042660  | 4.734818               | 0.182584  |
| C | 0.253010  | 1.149097  | 0.350153  | C  | 1.669440  | 4.765474               | 1.899216  |
| H | 0.249596  | 1.156520  | 1.446748  | H  | 1.724444  | 5.817271               | 2.192372  |
| C | 0.477638  | 2.568613  | -0.199024 | H  | 1.000220  | 4.247146               | 2.591524  |
| H | 1.547507  | 2.698385  | -0.401720 | H  | 2.672664  | 4.331885               | 1.960050  |
| H | -0.052720 | 2.667436  | -1.151180 | <u>Ac-(Ala)<sub>4</sub>-Met-(Ala)<sub>4</sub>-NHMe</u> |           | <u>C7<sub>eq</sub></u> |           |
| C | -1.097690 | 0.547649  | -0.118276 | C  | 14.317334 | -1.704173              | -0.057295 |
| O | -1.737392 | 1.014032  | -1.066279 | H  | 14.704465 | -1.692127              | -1.080465 |
| N | -1.486355 | -0.545206 | 0.578478  | H  | 14.087354 | -2.735014              | 0.227716  |
| H | -0.827499 | -0.908446 | 1.268059  | H  | 15.097801 | -1.345611              | 0.621223  |
| C | -2.563985 | -1.428834 | 0.118947  | C  | 13.078109 | -0.851179              | 0.137398  |
| H | -2.536454 | -1.426208 | -0.978589 | O  | 12.500017 | -0.787634              | 1.225571  |
| C | -2.336851 | -2.841452 | 0.648917  | N  | 12.646485 | -0.154881              | -0.949997 |
| H | -1.351988 | -3.206343 | 0.340768  | H  | 13.115438 | -0.275632              | -1.837120 |
| H | -2.402530 | -2.861005 | 1.740361  | C  | 11.536398 | 0.802416               | -0.892706 |
| H | -3.102326 | -3.518949 | 0.262518  | H  | 11.591982 | 1.274185               | 0.095062  |
| C | -3.956788 | -0.896970 | 0.537069  | C  | 11.685350 | 1.850635               | -1.990433 |
| O | -4.655400 | -1.487050 | 1.369171  | H  | 12.646953 | 2.364583               | -1.895187 |
| N | -4.349807 | 0.225710  | -0.106018 | H  | 11.611504 | 1.392671               | -2.981788 |
| H | -3.663159 | 0.679848  | -0.710291 | H  | 10.884097 | 2.590060               | -1.917956 |
| C | -5.570161 | 0.958349  | 0.253279  | C  | 10.171441 | 0.077629               | -0.987591 |
| H | -5.693776 | 0.860852  | 1.339507  | O  | 9.439900  | 0.189777               | -1.977181 |
| C | -5.435469 | 2.426827  | -0.135206 | N  | 9.855689  | -0.667318              | 0.096487  |
| H | -4.556816 | 2.866711  | 0.345178  | H  | 10.563511 | -0.745066              | 0.828891  |
| H | -5.341643 | 2.534212  | -1.219730 | C  | 8.703476  | -1.575724              | 0.125172  |
| H | -6.326900 | 2.980092  | 0.171162  | H  | 8.582305  | -1.969846              | -0.892069 |
| C | -6.817145 | 0.319347  | -0.407825 | C  | 8.957377  | -2.714764              | 1.107579  |
| O | -7.478201 | 0.909559  | -1.268654 | H  | 9.873064  | -3.249890              | 0.837621  |
| N | -7.125068 | -0.917446 | 0.047874  | H  | 9.050501  | -2.334884              | 2.128929  |

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|   |           |           |           |       |            |           |           |
|---|-----------|-----------|-----------|-------|------------|-----------|-----------|
| H | 4.198959  | 1.402318  | -1.237754 | H     | -6.486074  | -1.337262 | 0.725216  |
| C | 5.193269  | 0.789408  | -3.053113 | C     | -8.152332  | -1.756064 | -0.577560 |
| H | 5.925388  | 1.603863  | -3.035155 | H     | -8.149189  | -1.516176 | -1.648474 |
| H | 5.660748  | -0.099837 | -3.491953 | C     | -7.825956  | -3.231100 | -0.365751 |
| H | 4.361869  | 1.090194  | -3.695168 | H     | -6.834278  | -3.459639 | -0.768816 |
| C | 3.533155  | -0.541290 | -1.693432 | H     | -7.849604  | -3.486048 | 0.697692  |
| O | 2.384793  | -0.159106 | -1.926672 | H     | -8.566275  | -3.858219 | -0.868693 |
| N | 3.861211  | -1.844905 | -1.529774 | C     | -9.562748  | -1.411828 | -0.038358 |
| H | 4.796804  | -2.106391 | -1.227731 | O     | -10.220658 | -2.215200 | 0.632298  |
| C | 2.821163  | -2.873362 | -1.541300 | N     | -10.005101 | -0.180117 | -0.377716 |
| H | 2.180281  | -2.695057 | -2.407958 | H     | -9.366976  | 0.416207  | -0.906165 |
| C | 3.448194  | -4.268614 | -1.635467 | C     | -11.242974 | 0.398816  | 0.157669  |
| H | 4.005999  | -4.373187 | -2.571899 | H     | -11.357615 | 0.008080  | 1.176224  |
| H | 4.132350  | -4.455060 | -0.801400 | C     | -11.140750 | 1.920137  | 0.180912  |
| H | 2.658401  | -5.024547 | -1.617083 | H     | -10.271274 | 2.235067  | 0.767040  |
| C | 1.871488  | -2.777470 | -0.328073 | H     | -11.055635 | 2.317277  | -0.834694 |
| O | 0.682952  | -3.072437 | -0.451956 | H     | -12.042557 | 2.350925  | 0.623282  |
| N | 2.429632  | -2.414590 | 0.855447  | C     | -12.476735 | -0.062783 | -0.664191 |
| H | 3.369055  | -2.034686 | 0.859770  | O     | -13.121800 | 0.711919  | -1.363612 |
| C | 1.606445  | -2.211364 | 2.045751  | N     | -12.766996 | -1.382680 | -0.508710 |
| H | 0.936465  | -3.068778 | 2.140963  | H     | -12.103494 | -1.941220 | 0.025079  |
| C | 2.489576  | -2.096042 | 3.292410  | C     | -13.829284 | -2.035436 | -1.249148 |
| H | 3.055664  | -3.021118 | 3.445747  | H     | -13.432015 | -2.715350 | -2.014563 |
| H | 3.195172  | -1.263101 | 3.200433  | H     | -14.475093 | -2.610201 | -0.575278 |
| H | 1.862604  | -1.924482 | 4.172025  | H     | -14.419768 | -1.259985 | -1.739668 |
| C | 0.664152  | -0.996205 | 1.908793  | C     | 0.064959   | 3.688836  | 0.762050  |
| O | -0.483236 | -1.040126 | 2.344438  | H     | 0.332486   | 4.657972  | 0.326045  |
| N | 1.180337  | 0.101490  | 1.295272  | H     | 0.607600   | 3.585705  | 1.710399  |
| H | 2.143663  | 0.098417  | 0.979950  | S     | -1.736725  | 3.682336  | 1.131919  |
| C | 0.348077  | 1.269965  | 1.014884  | C     | -1.751265  | 4.921114  | 2.473593  |
| H | -0.124597 | 1.602017  | 1.943572  | H     | -2.788033  | 5.024218  | 2.804343  |
| C | 1.246895  | 2.386054  | 0.447648  | H     | -1.142004  | 4.595530  | 3.322824  |
| H | 2.122702  | 2.454351  | 1.110244  | H     | -1.398506  | 5.895067  | 2.120064  |
| H | 1.633442  | 2.056803  | -0.528717 | <hr/> |            |           |           |
| C | -0.828063 | 0.893851  | 0.082421  | C     | 8.708696   | -3.262490 | -0.565922 |
| O | -1.981059 | 1.254066  | 0.331937  | H     | 9.633140   | -2.678864 | -0.602918 |
| N | -0.525382 | 0.148449  | -1.007726 | H     | 8.471822   | -3.631204 | -1.567177 |
| H | 0.439975  | -0.091290 | -1.215808 | H     | 8.871415   | -4.137214 | 0.073502  |
| C | -1.566714 | -0.237967 | -1.956886 | C     | 7.523403   | -2.484121 | -0.032173 |
| H | -2.088700 | 0.659344  | -2.303857 | O     | 6.366985   | -2.893103 | -0.135332 |
| C | -0.947064 | -0.980038 | -3.146364 | N     | 7.798999   | -1.283701 | 0.570067  |
| H | -0.210165 | -0.348452 | -3.653591 | H     | 8.766934   | -1.054735 | 0.758006  |
| H | -0.452489 | -1.898738 | -2.812928 | C     | 6.782445   | -0.597822 | 1.372119  |
| H | -1.732294 | -1.244638 | -3.860113 | H     | 6.376554   | -1.292810 | 2.115696  |
| C | -2.670647 | -1.096072 | -1.308389 | C     | 7.394505   | 0.614334  | 2.083731  |
| O | -3.844597 | -0.971893 | -1.663402 | H     | 8.193154   | 0.300781  | 2.765130  |
| N | -2.276656 | -1.993483 | -0.373740 | H     | 7.805073   | 1.332325  | 1.365103  |
| H | -1.289111 | -2.115681 | -0.172227 | H     | 6.624681   | 1.118729  | 2.672942  |
| C | -3.236271 | -2.883022 | 0.271554  | C     | 5.562638   | -0.167665 | 0.544254  |
| H | -3.785116 | -3.440325 | -0.495205 | O     | 4.460025   | -0.060676 | 1.087411  |
| C | -2.505010 | -3.856691 | 1.202660  | N     | 5.765928   | 0.108505  | -0.763697 |
| H | -1.789762 | -4.463972 | 0.637739  | H     | 6.690263   | -0.035892 | -1.148274 |
| H | -1.961444 | -3.307336 | 1.978581  | C     | 4.668444   | 0.501120  | -1.643187 |

|   |            |           |           |   |            |           |           |
|---|------------|-----------|-----------|---|------------|-----------|-----------|
| C | -14.589486 | -0.111297 | -0.726567 | H   | -3.233781  | -4.518284 | 1.678736  |
| H | -14.547446 | -0.535029 | -1.738055 | C   | -4.330710  | -2.129384 | 1.052151  |
| C | -14.473769 | 1.421477  | -0.837753 | O   | -5.431909  | -2.660515 | 1.222825  |
| H | -15.315943 | 1.795251  | -1.425168 | N   | -4.004683  | -0.914268 | 1.549115  |
| H | -14.498589 | 1.881122  | 0.156044  | H   | -3.099895  | -0.509586 | 1.330660  |
| H | -13.543335 | 1.716856  | -1.335336 | C   | -4.960208  | -0.106706 | 2.296581  |
| C | -13.455327 | -0.703893 | 0.127335  | H   | -5.498544  | -0.778673 | 2.973453  |
| O | -13.666928 | -1.168807 | 1.249526  | C   | -4.230846  | 0.965209  | 3.111151  |
| N | -12.225709 | -0.661103 | -0.432957 | H   | -3.570747  | 0.501149  | 3.851335  |
| H | -12.057172 | -0.220480 | -1.332278 | H   | -3.622418  | 1.600136  | 2.458088  |
| C | -11.022687 | -1.065012 | 0.273593  | H   | -4.969380  | 1.585545  | 3.623963  |
| H | -11.088138 | -0.704713 | 1.307502  | C   | -6.081795  | 0.526847  | 1.438971  |
| C | -10.851304 | -2.595845 | 0.296260  | O   | -6.999512  | 1.115697  | 2.005903  |
| H | -11.723538 | -3.044405 | 0.778236  | N   | -5.995730  | 0.361033  | 0.093829  |
| H | -10.766399 | -2.986539 | -0.723171 | H   | -5.182647  | -0.093866 | -0.312894 |
| H | -9.956111  | -2.886509 | 0.856822  | C   | -7.071651  | 0.732776  | -0.812502 |
| C | -9.847332  | -0.374913 | -0.442285 | H   | -7.758464  | 1.353191  | -0.227791 |
| O | -9.986500  | 0.132984  | -1.557086 | C   | -6.541424  | 1.530058  | -2.009352 |
| N | -8.674016  | -0.386966 | 0.225751  | H   | -6.121443  | 2.483787  | -1.673148 |
| H | -8.562610  | -0.861616 | 1.117073  | H   | -7.356737  | 1.716624  | -2.711861 |
| C | -7.433717  | 0.110918  | -0.344426 | H   | -5.754218  | 0.968890  | -2.525851 |
| H | -7.376773  | -0.210820 | -1.391475 | C   | -7.906451  | -0.475647 | -1.301280 |
| C | -7.350503  | 1.648261  | -0.295058 | O   | -8.755951  | -0.324479 | -2.179263 |
| H | -8.195375  | 2.069094  | -0.845752 | N   | -7.665766  | -1.666712 | -0.704256 |
| H | -7.388580  | 2.000383  | 0.741058  | H   | -6.953169  | -1.754907 | 0.011997  |
| H | -6.423084  | 2.009843  | -0.752205 | C   | -8.413727  | -2.851694 | -1.076551 |
| C | -6.297012  | -0.545208 | 0.461579  | H   | -8.461733  | -2.941945 | -2.166272 |
| O | -6.520860  | -1.119382 | 1.529625  | H   | -7.908937  | -3.724952 | -0.656788 |
| N | -5.064071  | -0.427924 | -0.074420 | H   | -9.443838  | -2.817420 | -0.698570 |
| H | -4.890777  | 0.103257  | -0.923105 | C   | 0.621784   | 3.748925  | 0.331991  |
| C | -3.859220  | -0.875543 | 0.604270  | C   | -0.693137  | 4.118486  | 0.481683  |
| H | -3.941802  | -0.615948 | 1.666889  | C   | 1.353221   | 4.957044  | 0.033525  |
| C | -3.657502  | -2.397237 | 0.482210  | H   | -1.558643  | 3.506263  | 0.691189  |
| H | -4.525349  | -2.907796 | 0.907198  | N   | -0.819532  | 5.482282  | 0.297455  |
| H | -3.551850  | -2.686551 | -0.568526 | C   | 0.415262   | 6.026842  | 0.018069  |
| H | -2.762923  | -2.721501 | 1.024447  | C   | 2.706192   | 5.242026  | -0.218041 |
| C | -2.694800  | -0.092310 | -0.031244 | H   | -1.690015  | 5.988756  | 0.340524  |
| O | -2.845513  | 0.529019  | -1.086172 | C   | 0.793426   | 7.347853  | -0.241304 |
| N | -1.519342  | -0.163349 | 0.627357  | C   | 3.087474   | 6.553420  | -0.476713 |
| H | -1.427437  | -0.643738 | 1.516872  | H   | 3.448155   | 4.446372  | -0.210205 |
| C | -0.303455  | 0.488775  | 0.163523  | H   | 0.062860   | 8.152700  | -0.249655 |
| H | -0.246805  | 0.386270  | -0.924282 | C   | 2.139156   | 7.596282  | -0.489095 |
| C | -0.318862  | 2.005798  | 0.523105  | H   | 4.131697   | 6.782950  | -0.672731 |
| H | -1.220826  | 2.417440  | 0.058862  | H   | 2.464504   | 8.612400  | -0.694929 |
| H | -0.447466  | 2.085863  | 1.609169  | <hr/> <b>Ac-(Ala)<sub>4</sub>-Trp-(Ala)<sub>4</sub>-NHMe C5</b> |            |           |           |
| C | 0.856850   | -0.242635 | 0.851232  | C   | -18.206477 | -1.089072 | -0.018247 |
| O | 0.717176   | -0.684996 | 1.996078  | H   | -17.965010 | -1.397976 | 1.003494  |
| N | 1.994789   | -0.347294 | 0.138357  | H   | -18.624599 | -1.942738 | -0.560798 |
| H | 2.103220   | 0.119598  | -0.758351 | H   | -18.980275 | -0.315770 | 0.017266  |
| C | 3.239146   | -0.838560 | 0.708452  | C   | -17.011004 | -0.552865 | -0.793796 |
| H | 3.364574   | -0.398928 | 1.705751  | O   | -17.109697 | -0.169457 | -1.956752 |
| C | 3.251083   | -2.373183 | 0.830489  | N   | -15.835519 | -0.520977 | -0.108459 |
| H | 2.417782   | -2.688780 | 1.462892  | H   | -15.737617 | -0.919795 | 0.818497  |

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|  |            |           |           |   |           |           |           |
|--|------------|-----------|-----------|---|-----------|-----------|-----------|
| H  | 4.124168   | 2.776109  | 3.560294  | H | 3.146730  | -2.836790 | -0.156039 |
| H  | 5.585578   | 4.163150  | 2.122049  | H | 4.184001  | -2.725245 | 1.283572  |
| <b>Ac-(Ala)<sub>4</sub>-Trp-(Ala)<sub>4</sub>-NHMe C7<sub>eq</sub></b> |            |           |           |   |           |           |           |
| C  | -14.422750 | -1.790030 | 0.053648  | C | 4.363573  | -0.330352 | -0.213267 |
| H  | -14.809336 | -1.748413 | 1.076271  | O | 4.117000  | 0.151346  | -1.320950 |
| H  | -14.238992 | -2.833360 | -0.218968 | N | 5.614303  | -0.472992 | 0.272798  |
| H  | -15.186310 | -1.404918 | -0.629632 | H | 5.799735  | -0.894045 | 1.178093  |
| C  | -13.146364 | -0.995850 | -0.149935 | C | 6.804409  | -0.116591 | -0.479368 |
| O  | -12.560021 | -0.979534 | -1.235398 | H | 6.691210  | -0.482669 | -1.507117 |
| N  | -12.691310 | -0.296827 | 0.925998  | C | 7.031392  | 1.406795  | -0.517064 |
| H  | -13.170293 | -0.379029 | 1.812157  | H | 6.155677  | 1.888155  | -0.958333 |
| C  | -11.541283 | 0.611415  | 0.856773  | H | 7.171449  | 1.796829  | 0.496113  |
| H  | -11.571113 | 1.065174  | -0.140514 | H | 7.912856  | 1.659538  | -1.116652 |
| C  | -11.652492 | 1.686994  | 1.932302  | C | 7.977808  | -0.840931 | 0.204659  |
| H  | -12.591628 | 2.237925  | 1.820873  | O | 7.860892  | -1.323694 | 1.332828  |
| H  | -11.602823 | 1.246631  | 2.933099  | N | 9.127266  | -0.882146 | -0.503241 |
| H  | -10.821204 | 2.391413  | 1.850032  | H | 9.222074  | -0.430885 | -1.408185 |
| C  | -10.208476 | -0.167648 | 0.975020  | C | 10.369143 | -1.406197 | 0.039868  |
| O  | -9.476524  | -0.063163 | 1.965090  | H | 10.459573 | -1.075957 | 1.081791  |
| N  | -9.919633  | -0.949999 | -0.090028 | C | 10.413752 | -2.945575 | 0.004353  |
| H  | -10.625557 | -1.013469 | -0.825596 | H | 9.575036  | -3.340031 | 0.583272  |
| C  | -8.804787  | -1.904235 | -0.092340 | H | 10.337492 | -3.306995 | -1.026399 |
| H  | -8.700776  | -2.275090 | 0.935461  | H | 11.344811 | -3.324684 | 0.439344  |
| C  | -9.103744  | -3.058398 | -1.044020 | C | 11.500821 | -0.788394 | -0.800629 |
| H  | -10.040034 | -3.548841 | -0.760357 | O | 11.270658 | -0.245894 | -1.883661 |
| H  | -9.181958  | -2.702831 | -2.075361 | N | 12.740976 | -0.903329 | -0.278897 |
| H  | -8.295905  | -3.793466 | -1.011952 | H | 12.919868 | -1.389297 | 0.594993  |
| C  | -7.473668  | -1.204313 | -0.460208 | C | 13.936133 | -0.473409 | -0.983784 |
| O  | -6.860586  | -1.467314 | -1.499982 | H | 13.842808 | -0.769391 | -2.036185 |
| N  | -7.039053  | -0.305917 | 0.454186  | C | 14.129133 | 1.053560  | -0.913927 |
| H  | -7.639601  | -0.131877 | 1.261603  | H | 13.253413 | 1.544013  | -1.345921 |
| C  | -5.905689  | 0.591410  | 0.205355  | H | 14.244682 | 1.376985  | 0.125550  |
| H  | -5.913379  | 0.823673  | -0.867157 | H | 15.015325 | 1.368444  | -1.476091 |
| C  | -6.058190  | 1.868949  | 1.024812  | C | 15.113006 | -1.220920 | -0.329551 |
| H  | -7.005679  | 2.360687  | 0.783453  | O | 14.988437 | -1.762971 | 0.766622  |
| H  | -6.028284  | 1.650199  | 2.096083  | N | 16.271933 | -1.204599 | -1.035485 |
| H  | -5.238314  | 2.558122  | 0.808207  | H | 16.277279 | -0.760082 | -1.942790 |
| C  | -4.561226  | -0.112584 | 0.509754  | C | 17.502261 | -1.813323 | -0.553735 |
| O  | -3.828864  | 0.246107  | 1.438427  | H | 17.829506 | -2.618716 | -1.220787 |
| N  | -4.256965  | -1.129097 | -0.330410 | H | 18.302533 | -1.069141 | -0.474535 |
| H  | -4.955397  | -1.376594 | -1.033776 | H | 17.298431 | -2.228129 | 0.433773  |
| C  | -3.126986  | -2.035901 | -0.101342 | C | 0.891689  | 2.778117  | 0.085603  |
| H  | -3.023477  | -2.149060 | 0.985498  | C | 1.066006  | 3.413519  | -1.120619 |
| C  | -3.400417  | -3.388640 | -0.750795 | C | 2.097933  | 3.014336  | 0.844431  |
| H  | -4.328662  | -3.814612 | -0.357527 | H | 0.390743  | 3.486737  | -1.962831 |
| H  | -3.481999  | -3.289663 | -1.837014 | N | 2.300234  | 4.031928  | -1.156581 |
| H  | -2.579531  | -4.080150 | -0.545589 | C | 2.958544  | 3.805145  | 0.034254  |
| C  | -1.805768  | -1.420285 | -0.622805 | C | 2.530572  | 2.639757  | 2.129504  |
| O  | -1.183999  | -1.905259 | -1.573932 | H | 2.670535  | 4.544012  | -1.941733 |
| N  | -1.391692  | -0.324746 | 0.056837  | C | 4.217419  | 4.229674  | 0.472830  |
| H  | -1.999582  | 0.028205  | 0.798394  | C | 3.781609  | 3.056872  | 2.568039  |
| C  | -0.256863  | 0.482108  | -0.396823 | H | 1.899107  | 2.025070  | 2.765877  |
| H  | -0.261129  | 0.444399  | -1.492393 | H | 4.859156  | 4.840313  | -0.157272 |
|  |            |           |           | C | 4.615715  | 3.845834  | 1.748490  |

|                                      |           |           |           |   |           |           |           |
|--------------------------------------|-----------|-----------|-----------|---|-----------|-----------|-----------|
| C                                    | 0.529733  | 4.326494  | -0.395083 | C | -0.401966 | 1.929581  | 0.077737  |
| H                                    | 1.728980  | 1.721900  | -2.066380 | H | -1.449788 | 2.227740  | -0.064928 |
| N                                    | 2.042890  | 3.837269  | -1.990212 | H | -0.206849 | 1.960076  | 1.157351  |
| C                                    | 1.505143  | 4.881670  | -1.267358 | C | 1.060668  | -0.157277 | 0.103546  |
| C                                    | -0.175375 | 5.183205  | 0.467991  | O | 1.672782  | 0.266867  | 1.086967  |
| H                                    | 2.745715  | 3.920936  | -2.707484 | N | 1.469286  | -1.223479 | -0.629987 |
| C                                    | 1.785390  | 6.251742  | -1.299562 | H | 0.790692  | -1.594896 | -1.296401 |
| C                                    | 0.099840  | 6.544534  | 0.440591  | C | 2.544031  | -2.115999 | -0.175491 |
| H                                    | -0.923196 | 4.786132  | 1.149885  | H | 2.499833  | -2.146449 | 0.921337  |
| H                                    | 2.534805  | 6.660260  | -1.972691 | C | 2.340149  | -3.513215 | -0.752332 |
| C                                    | 1.070397  | 7.072979  | -0.435455 | H | 1.354891  | -3.897102 | -0.469759 |
| H                                    | -0.437746 | 7.215811  | 1.104696  | H | 2.421022  | -3.498795 | -1.842912 |
| H                                    | 1.264902  | 8.142014  | -0.434225 | H | 3.107244  | -4.194345 | -0.375874 |
| Ac-(Ala)4-Hid-(Ala)4-NHMe $\alpha$ R |           |           |           | C | 3.932024  | -1.548578 | -0.559543 |
| C                                    | -8.914083 | -2.327653 | 0.043577  | O | 4.666995  | -2.114606 | -1.376600 |
| H                                    | -9.806765 | -1.709620 | 0.176537  | N | 4.272137  | -0.407687 | 0.082877  |
| H                                    | -8.722333 | -2.890448 | 0.960702  | H | 3.573661  | 0.005421  | 0.703728  |
| H                                    | -9.107000 | -3.056380 | -0.751571 | C | 5.461759  | 0.375842  | -0.267349 |
| C                                    | -7.676552 | -1.531600 | -0.316241 | H | 5.608266  | 0.264153  | -1.349583 |
| O                                    | -6.545808 | -2.018662 | -0.277973 | C | 5.246774  | 1.843361  | 0.090221  |
| N                                    | -7.871117 | -0.225313 | -0.680675 | H | 4.357946  | 2.232091  | -0.416389 |
| H                                    | -8.819787 | 0.090909  | -0.838107 | H | 5.122800  | 1.966589  | 1.169918  |
| C                                    | -6.795967 | 0.542096  | -1.314757 | H | 6.116028  | 2.435384  | -0.206950 |
| H                                    | -6.417892 | -0.008700 | -2.183170 | C | 6.729926  | -0.188170 | 0.420236  |
| C                                    | -7.314177 | 1.913559  | -1.763256 | O | 7.361262  | 0.458564  | 1.262129  |
| H                                    | -8.116551 | 1.801688  | -2.500910 | N | 7.089875  | -1.425574 | 0.006885  |
| H                                    | -7.693525 | 2.493297  | -0.914542 | H | 6.481185  | -1.889171 | -0.669600 |
| H                                    | -6.502193 | 2.476962  | -2.229784 | C | 8.158741  | -2.194772 | 0.651721  |
| C                                    | -5.572554 | 0.707208  | -0.400911 | H | 8.149070  | -1.920800 | 1.714211  |
| O                                    | -4.446539 | 0.810253  | -0.895202 | C | 7.901402  | -3.689622 | 0.489906  |
| N                                    | -5.797581 | 0.767151  | 0.930785  | H | 6.924297  | -3.951854 | 0.907739  |
| H                                    | -6.745057 | 0.650916  | 1.265874  | H | 7.931677  | -3.977981 | -0.564819 |
| C                                    | -4.704990 | 0.914769  | 1.888777  | H | 8.673621  | -4.264043 | 1.007598  |
| H                                    | -4.149553 | 1.826613  | 1.650567  | C | 9.548118  | -1.801857 | 0.091064  |
| C                                    | -5.257883 | 1.010709  | 3.314147  | O | 10.237814 | -2.593858 | -0.560554 |
| H                                    | -5.918287 | 1.878533  | 3.415978  | N | 9.934435  | -0.540616 | 0.387825  |
| H                                    | -5.813943 | 0.105865  | 3.585901  | H | 9.274783  | 0.041322  | 0.905327  |
| H                                    | -4.429841 | 1.126279  | 4.017759  | C | 11.139893 | 0.078213  | -0.176221 |
| C                                    | -3.660932 | -0.215650 | 1.789208  | H | 11.266173 | -0.340505 | -1.182171 |
| O                                    | -2.489370 | 0.026737  | 2.082456  | C | 10.965062 | 1.591323  | -0.249328 |
| N                                    | -4.095671 | -1.449445 | 1.433219  | H | 10.077286 | 1.844414  | -0.838099 |
| H                                    | -5.035063 | -1.575363 | 1.064294  | H | 10.868433 | 2.018676  | 0.752921  |
| C                                    | -3.143137 | -2.551397 | 1.294990  | H | 11.841951 | 2.049177  | -0.714016 |
| H                                    | -2.517604 | -2.572063 | 2.190489  | C | 12.399312 | -0.296706 | 0.650542  |
| C                                    | -3.883920 | -3.884506 | 1.144279  | O | 13.010037 | 0.530590  | 1.319762  |
| H                                    | -4.475096 | -4.093930 | 2.041833  | N | 12.752136 | -1.605428 | 0.535259  |
| H                                    | -4.556628 | -3.871914 | 0.280724  | H | 12.113944 | -2.212668 | 0.024455  |
| H                                    | -3.159548 | -4.693101 | 1.012490  | C | 13.850496 | -2.181439 | 1.286980  |
| C                                    | -2.151264 | -2.329046 | 0.134238  | H | 13.492417 | -2.853086 | 2.078515  |
| O                                    | -0.972393 | -2.665698 | 0.249545  | H | 14.517467 | -2.747250 | 0.626352  |
| N                                    | -2.658831 | -1.790724 | -1.004091 | H | 14.407087 | -1.362509 | 1.745337  |
| H                                    | -3.595376 | -1.405081 | -0.990056 | C | 0.498890  | 2.903010  | -0.630609 |
| C                                    | -1.786952 | -1.439012 | -2.122823 | C | 1.431038  | 2.654668  | -1.607313 |

|  |           |           |           |   |           |           |           |
|--|-----------|-----------|-----------|---|-----------|-----------|-----------|
| H  | 7.321961  | 1.488727  | 2.775993  | H | -1.159858 | -2.304107 | -2.350241 |
| C  | 7.771826  | -0.513306 | 1.085536  | C | -2.622467 | -1.059059 | -3.349770 |
| O  | 8.679497  | -0.465018 | 1.915548  | H | -3.236622 | -1.907463 | -3.670082 |
| N  | 7.472604  | -1.630129 | 0.381888  | H | -3.279350 | -0.210514 | -3.129610 |
| H  | 6.716083  | -1.631469 | -0.293590 | H | -1.960657 | -0.781096 | -4.174884 |
| C  | 8.228752  | -2.853152 | 0.568007  | C | -0.792056 | -0.318214 | -1.754198 |
| H  | 8.363933  | -3.053876 | 1.635228  | O | 0.373358  | -0.357745 | -2.144324 |
| H  | 7.677258  | -3.675225 | 0.105567  | N | -1.282214 | 0.697042  | -0.995329 |
| H  | 9.224943  | -2.789273 | 0.111017  | H | -2.266196 | 0.719386  | -0.748854 |
| C  | -0.609799 | 4.259395  | 0.109897  | C | -0.415049 | 1.793839  | -0.582215 |
| N  | 0.742847  | 4.482097  | 0.289453  | H | 0.089739  | 2.196805  | -1.465206 |
| C  | -1.158117 | 5.517943  | -0.000810 | C | -1.253340 | 2.903637  | 0.098129  |
| C  | 0.935262  | 5.831855  | 0.266235  | H | -2.201234 | 2.994306  | -0.446428 |
| N  | -0.192936 | 6.492778  | 0.100677  | H | -1.509655 | 2.565628  | 1.113254  |
| H  | -2.200567 | 5.772583  | -0.148764 | C | 0.724011  | 1.300892  | 0.339643  |
| H  | 1.917194  | 6.274330  | 0.369211  | O | 1.845763  | 1.821016  | 0.284601  |
| H  | 1.448270  | 3.746626  | 0.332303  | N | 0.425578  | 0.313077  | 1.209034  |
| Ac-(Ala) <sub>4</sub> -Hid-(Ala) <sub>4</sub> -NHMe C7 <sub>eq</sub> |           |           |           | H | -0.529491 | -0.024583 | 1.283445  |
| C  | 14.303335 | -1.654834 | 0.466437  | C | 1.448620  | -0.250306 | 2.087889  |
| H  | 14.752405 | -1.565159 | -0.527181 | H | 2.012171  | 0.569821  | 2.540365  |
| H  | 14.082142 | -2.706915 | 0.667780  | C | 0.798250  | -1.114220 | 3.173521  |
| H  | 15.031825 | -1.326402 | 1.214683  | H | 0.103268  | -0.518211 | 3.773816  |
| C  | 13.033416 | -0.843164 | 0.638348  | H | 0.248065  | -1.949963 | 2.727692  |
| O  | 12.370424 | -0.890086 | 1.677836  | H | 1.573147  | -1.518388 | 3.831066  |
| N  | 12.673700 | -0.053767 | -0.410931 | C | 2.503655  | -1.061178 | 1.305838  |
| H  | 13.214607 | -0.082559 | -1.264155 | O | 3.691287  | -1.018453 | 1.629357  |
| C  | 11.546156 | 0.883063  | -0.352250 | N | 2.048212  | -1.822540 | 0.280686  |
| H  | 11.517201 | 1.261022  | 0.676270  | H | 1.052685  | -1.878167 | 0.089493  |
| C  | 11.760843 | 2.031148  | -1.332940 | C | 2.957981  | -2.652742 | -0.502353 |
| H  | 12.704624 | 2.541991  | -1.117797 | H | 3.525989  | -3.300493 | 0.173523  |
| H  | 11.768024 | 1.668188  | -2.365497 | C | 2.167452  | -3.502614 | -1.503188 |
| H  | 10.945413 | 2.754101  | -1.252602 | H | 1.459303  | -4.154445 | -0.980751 |
| C  | 10.205000 | 0.157131  | -0.620325 | H | 1.609645  | -2.860204 | -2.192941 |
| O  | 9.546433  | 0.358916  | -1.646424 | H | 2.860353  | -4.122148 | -2.078963 |
| N  | 9.822731  | -0.694083 | 0.358771  | C | 4.035025  | -1.830649 | -1.238206 |
| H  | 10.474018 | -0.834259 | 1.133215  | O | 5.129393  | -2.339129 | -1.492115 |
| C  | 8.690692  | -1.616111 | 0.210207  | N | 3.698180  | -0.568567 | -1.589678 |
| H  | 8.654172  | -1.909254 | -0.846993 | H | 2.762614  | -0.234798 | -1.387379 |
| C  | 8.896054  | -2.842827 | 1.093492  | C | 4.623857  | 0.325817  | -2.275146 |
| H  | 9.837776  | -3.338488 | 0.838335  | H | 5.084020  | -0.226403 | -3.101839 |
| H  | 8.912497  | -2.562928 | 2.150685  | C | 3.868143  | 1.539686  | -2.823764 |
| H  | 8.075388  | -3.550863 | 0.955244  | H | 3.116793  | 1.227359  | -3.557022 |
| C  | 7.350574  | -0.911381 | 0.532632  | H | 3.360494  | 2.076400  | -2.014128 |
| O  | 6.654365  | -1.238703 | 1.499385  | H | 4.579758  | 2.215250  | -3.303551 |
| N  | 7.004692  | 0.066790  | -0.336875 | C | 5.827727  | 0.787464  | -1.419809 |
| H  | 7.669403  | 0.288613  | -1.080108 | O | 6.747663  | 1.382378  | -1.975382 |
| C  | 5.874393  | 0.971114  | -0.100345 | N | 5.794928  | 0.497548  | -0.093669 |
| H  | 5.807080  | 1.120095  | 0.984846  | H | 4.986753  | 0.029137  | 0.305873  |
| C  | 6.111862  | 2.303807  | -0.803396 | C | 6.924031  | 0.748011  | 0.790958  |
| H  | 7.047959  | 2.750668  | -0.454728 | H | 7.586658  | 1.431330  | 0.250462  |
| H  | 6.158584  | 2.169950  | -1.887932 | C | 6.466949  | 1.395405  | 2.102918  |
| H  | 5.292121  | 2.995241  | -0.593367 | H | 6.041319  | 2.385671  | 1.910714  |
| C  | 4.543877  | 0.324608  | -0.554783 | H | 5.702625  | 0.778886  | 2.589958  |

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|  |            |           |           |   |            |           |           |
|--|------------|-----------|-----------|---|------------|-----------|-----------|
| H  | -11.137075 | -0.371120 | 1.814348  | O | 3.890493   | 0.765866  | -1.507267 |
| C  | -10.963534 | 1.733834  | 1.332899  | N | 4.156837   | -0.741598 | 0.183668  |
| H  | -10.013346 | 1.872636  | 1.858872  | H | 4.798561   | -1.058825 | 0.913287  |
| H  | -10.990317 | 2.385726  | 0.454895  | C | 3.040399   | -1.610589 | -0.203194 |
| H  | -11.780839 | 2.041480  | 1.989978  | H | 3.028962   | -1.650376 | -1.300201 |
| C  | -12.487639 | 0.058908  | 0.190563  | C | 3.238889   | -3.008397 | 0.374447  |
| O  | -13.179629 | 0.997589  | -0.190203 | H | 4.193410   | -3.423017 | 0.036029  |
| N  | -12.817512 | -1.251855 | 0.038055  | H | 3.224801   | -2.983561 | 1.467723  |
| H  | -12.118872 | -1.939366 | 0.313331  | H | 2.431790   | -3.670408 | 0.051049  |
| C  | -13.999193 | -1.674079 | -0.689205 | C | 1.687452   | -1.006357 | 0.243945  |
| H  | -13.745360 | -2.091726 | -1.672774 | O | 0.984733   | -1.536309 | 1.110974  |
| H  | -14.550211 | -2.432002 | -0.121144 | N | 1.337899   | 0.128193  | -0.408430 |
| H  | -14.634189 | -0.798572 | -0.833557 | H | 2.026471   | 0.511871  | -1.060439 |
| C  | -0.342218  | 3.482300  | 0.225448  | C | 0.225883   | 0.983722  | 0.020918  |
| N  | -1.649415  | 3.706724  | -0.159871 | H | 0.160506   | 0.920276  | 1.114138  |
| C  | -0.103790  | 4.424995  | 1.201263  | C | 0.529290   | 2.437527  | -0.396180 |
| C  | -2.125208  | 4.742953  | 0.589230  | H | 1.564339   | 2.645387  | -0.105203 |
| N  | -1.215618  | 5.204827  | 1.423186  | H | 0.485690   | 2.501628  | -1.490828 |
| H  | 0.815621   | 4.588942  | 1.749278  | C | -1.115849  | 0.460422  | -0.551770 |
| H  | -3.133240  | 5.121154  | 0.481397  | O | -1.807449  | 1.114431  | -1.350350 |
| H  | -2.130274  | 3.130187  | -0.840261 | N | -1.463098  | -0.765208 | -0.112245 |
| <hr/>  |            |           |           |   |            |           |           |
| Ac-(Ala) <sub>4</sub> -Hie-(Ala) <sub>4</sub> -NHMe αR |            |           |           |   |            |           |           |
| C  | 8.997600   | -2.369110 | -0.467577 | H | -0.811901  | -1.232509 | 0.524542  |
| H  | 9.875921   | -1.724925 | -0.569086 | C | -2.581422  | -1.533274 | -0.670567 |
| H  | 8.771828   | -2.830372 | -1.432204 | H | -2.661066  | -1.253308 | -1.728105 |
| H  | 9.235188   | -3.177124 | 0.233418  | C | -2.308238  | -3.028158 | -0.536893 |
| C  | 7.767505   | -1.637777 | 0.030521  | H | -1.369177  | -3.286449 | -1.035846 |
| O  | 6.638822   | -2.123572 | -0.040590 | H | -2.250221  | -3.320092 | 0.515422  |
| N  | 7.969976   | -0.390991 | 0.563339  | H | -3.119480  | -3.601932 | -0.991910 |
| H  | 8.922437   | -0.091930 | 0.730797  | C | -3.915126  | -1.145333 | 0.011638  |
| C  | 6.914980   | 0.275259  | 1.331739  | O | -4.528839  | -1.926307 | 0.744293  |
| H  | 6.556906   | -0.398817 | 2.117881  | N | -4.347857  | 0.104887  | -0.276178 |
| C  | 7.451297   | 1.563936  | 1.965817  | H | -3.741157  | 0.684786  | -0.853807 |
| H  | 8.271834   | 1.342814  | 2.657395  | C | -5.486348  | 0.728609  | 0.408746  |
| H  | 7.810864   | 2.263132  | 1.202766  | H | -5.483001  | 0.350460  | 1.438709  |
| H  | 6.653232   | 2.052079  | 2.530608  | C | -5.335645  | 2.246286  | 0.403173  |
| C  | 5.667491   | 0.577642  | 0.488394  | H | -4.388512  | 2.535540  | 0.869484  |
| O  | 4.561411   | 0.640813  | 1.031839  | H | -5.376684  | 2.634372  | -0.619438 |
| N  | 5.849763   | 0.792071  | -0.833540 | H | -6.155863  | 2.709377  | 0.956872  |
| H  | 6.782247   | 0.692071  | -1.212501 | C | -6.828292  | 0.2999151 | -0.235052 |
| C  | 4.730071   | 1.070681  | -1.728565 | O | -7.555926  | 1.102737  | -0.826796 |
| H  | 4.205203   | 1.960166  | -1.367640 | N | -7.132464  | -1.009721 | -0.079278 |
| C  | 5.236565   | 1.322162  | -3.152147 | H | -6.444554  | -1.598507 | 0.392011  |
| H  | 5.912040   | 2.183982  | -3.175757 | C | -8.268793  | -1.644096 | -0.755554 |
| H  | 5.763016   | 0.445505  | -3.547592 | H | -8.389529  | -1.131819 | -1.718289 |
| H  | 4.387246   | 1.534555  | -3.805882 | C | -7.985852  | -3.126610 | -0.977150 |
| C  | 3.663501   | -0.043277 | -1.724523 | H | -7.066401  | -3.253112 | -1.557457 |
| O  | 2.495662   | 0.252122  | -1.985727 | H | -7.884323  | -3.650037 | -0.022078 |
| N  | 4.068604   | -1.312363 | -1.480319 | H | -8.813194  | -3.592278 | -1.518259 |
| H  | 5.017736   | -1.497882 | -1.164668 | C | -9.580260  | -1.437304 | 0.042074  |
| C  | 3.091526   | -2.399821 | -1.422094 | O | -10.178890 | -2.381247 | 0.568731  |
| H  | 2.442448   | -2.318246 | -2.297119 | N | -10.007664 | -0.155707 | 0.095066  |
| C  | 3.801163   | -3.758050 | -1.423516 | H | -9.422850  | 0.552718  | -0.348411 |
|  |            |           |           | C | -11.138226 | 0.274268  | 0.927470  |

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|   |           |           |           |   |           |           |           |
|---|-----------|-----------|-----------|---|-----------|-----------|-----------|
| O   | -6.974931 | 1.335356  | 1.873160  | H | 4.369121  | -3.890703 | -2.350250 |
| N   | -5.931680 | 0.482996  | 0.024639  | H | 4.490836  | -3.847210 | -0.578025 |
| H   | -5.092181 | 0.048550  | -0.349736 | H | 3.058109  | -4.557374 | -1.355734 |
| C   | -7.040348 | 0.689220  | -0.895235 | C | 2.135489  | -2.279355 | -0.215270 |
| H   | -7.755140 | 1.330370  | -0.369514 | O | 0.962138  | -2.635884 | -0.318793 |
| C   | -6.574566 | 1.377502  | -2.183152 | N | 2.674864  | -1.821523 | 0.944559  |
| H   | -6.213690 | 2.387960  | -1.964553 | H | 3.592325  | -1.391687 | 0.923066  |
| H   | -5.758330 | 0.812478  | -2.647644 | C | 1.836263  | -1.573566 | 2.115652  |
| H   | -7.408670 | 1.430916  | -2.886265 | H | 1.205797  | -2.452012 | 2.269871  |
| C   | -7.810912 | -0.610733 | -1.231833 | C | 2.706527  | -1.329865 | 3.353048  |
| O   | -8.688148 | -0.601548 | -2.095543 | H | 3.315415  | -2.213880 | 3.571100  |
| N   | -7.483072 | -1.717058 | -0.524088 | H | 3.371670  | -0.472413 | 3.203798  |
| H   | -6.753643 | -1.687434 | 0.180241  | H | 2.067719  | -1.128013 | 4.217623  |
| C   | -8.169531 | -2.974628 | -0.746646 | C | 0.841128  | -0.414833 | 1.889796  |
| H   | -8.247220 | -3.177766 | -1.819224 | O | -0.308135 | -0.481786 | 2.318662  |
| H   | -7.599480 | -3.770347 | -0.261321 | N | 1.313293  | 0.660191  | 1.206144  |
| H   | -9.187085 | -2.960960 | -0.334699 | H | 2.282341  | 0.684861  | 0.909231  |
| C   | 0.618166  | 4.202508  | -0.001894 | C | 0.437525  | 1.774700  | 0.850187  |
| N   | 1.388197  | 5.310470  | -0.313230 | H | -0.042331 | 2.158817  | 1.755207  |
| C   | -0.709951 | 4.551737  | 0.073014  | C | 1.292795  | 2.874122  | 0.192813  |
| C   | 0.538957  | 6.308215  | -0.423539 | H | 2.174389  | 3.035663  | 0.827413  |
| N   | -0.744712 | 5.904391  | -0.198523 | H | 1.672162  | 2.499991  | -0.768503 |
| H   | -1.597932 | 3.972385  | 0.272948  | C | -0.730209 | 1.292522  | -0.043372 |
| H   | 0.792131  | 7.333781  | -0.657748 | O | -1.892187 | 1.641370  | 0.180464  |
| H   | -1.573693 | 6.480272  | -0.224067 | N | -0.408494 | 0.471581  | -1.071894 |
| <b>Ac-(Ala)<sub>4</sub>-Hie-(Ala)<sub>4</sub>-NHMe C5</b> |           |           |           | H | 0.563569  | 0.246606  | -1.265252 |
| C   | 17.949640 | -1.256097 | 0.425473  | C | -1.439718 | -0.023868 | -1.979787 |
| H   | 17.711420 | -1.896307 | -0.429538 | H | -2.000425 | 0.824274  | -2.384980 |
| H   | 18.312549 | -1.879014 | 1.248890  | C | -0.799268 | -0.825436 | -3.118539 |
| H   | 18.763280 | -0.578897 | 0.146924  | H | -0.092161 | -0.203608 | -3.677579 |
| C   | 16.769655 | -0.430270 | 0.919295  | H | -0.265227 | -1.696584 | -2.723879 |
| O   | 16.862869 | 0.323272  | 1.885092  | H | -1.578355 | -1.172647 | -3.802975 |
| N   | 15.615134 | -0.579249 | 0.214354  | C | -2.503070 | -0.876212 | -1.260506 |
| H   | 15.518496 | -1.258136 | -0.532332 | O | -3.680710 | -0.838312 | -1.623648 |
| C   | 14.382519 | 0.082497  | 0.595734  | N | -2.070038 | -1.672713 | -0.254617 |
| H   | 14.285891 | 0.034955  | 1.687769  | H | -1.079731 | -1.724030 | -0.038145 |
| C   | 14.363399 | 1.563671  | 0.170026  | C | -2.988379 | -2.547674 | 0.465069  |
| H   | 15.212125 | 2.073257  | 0.632653  | H | -3.519855 | -3.180057 | -0.254130 |
| H   | 14.443904 | 1.649773  | -0.918820 | C | -2.213170 | -3.422472 | 1.456777  |
| H   | 13.440791 | 2.059312  | 0.491971  | H | -1.481254 | -4.043078 | 0.928836  |
| C   | 13.235666 | -0.705213 | -0.060171 | H | -1.683171 | -2.797878 | 2.183565  |
| O   | 13.445105 | -1.516222 | -0.965042 | H | -2.912885 | -4.073051 | 1.988177  |
| N   | 11.999369 | -0.428604 | 0.411274  | C | -4.108157 | -1.783492 | 1.197779  |
| H   | 11.837120 | 0.281912  | 1.118647  | O | -5.175626 | -2.355490 | 1.438453  |
| C   | 10.789755 | -0.982180 | -0.171591 | N | -3.846399 | -0.509969 | 1.569912  |
| H   | 10.885163 | -0.957832 | -1.264198 | H | -2.966336 | -0.079568 | 1.304333  |
| C   | 10.548186 | -2.438746 | 0.268521  | C | -4.841890 | 0.312639  | 2.245804  |
| H   | 11.405292 | -3.047470 | -0.029681 | H | -5.320228 | -0.308122 | 3.010861  |
| H   | 10.430992 | -2.495677 | 1.355806  | C | -4.174137 | 1.519721  | 2.910462  |
| H   | 9.648366  | -2.851028 | -0.200982 | H | -3.471470 | 1.191707  | 3.683707  |
| C   | 9.636923  | -0.060618 | 0.267346  | H | -3.621337 | 2.111543  | 2.173135  |
| O   | 9.788050  | 0.769912  | 1.166015  | H | -4.945312 | 2.145342  | 3.365611  |
| N   | 8.467896  | -0.244440 | -0.382528 | C | -6.019420 | 0.766567  | 1.350022  |

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|  |            |           |           |   |            |           |           |
|--|------------|-----------|-----------|---|------------|-----------|-----------|
| H  | -9.778144  | -3.062809 | 0.383701  | H | 8.343152   | -0.974309 | -1.078206 |
| H  | -10.595538 | -2.397915 | 1.820230  | C | 7.242131   | 0.443182  | -0.012762 |
| H  | -11.551394 | -3.039923 | 0.465095  | H | 7.179218   | 0.477832  | 1.081659  |
| C  | -11.784556 | -0.219051 | 0.559032  | C | 7.199910   | 1.884224  | -0.554796 |
| O  | -11.590705 | 0.743303  | 1.305307  | H | 8.054962   | 2.439221  | -0.160728 |
| N  | -13.010543 | -0.588454 | 0.131066  | H | 7.247866   | 1.883735  | -1.648736 |
| H  | -13.159552 | -1.411990 | -0.444811 | H | 6.281558   | 2.395615  | -0.246586 |
| C  | -14.230620 | 0.059971  | 0.579411  | C | 6.086884   | -0.408159 | -0.572053 |
| H  | -14.144987 | 0.251083  | 1.656426  | O | 6.291782   | -1.287596 | -1.411980 |
| C  | -14.471971 | 1.398713  | -0.143791 | N | 4.862424   | -0.107868 | -0.092233 |
| H  | -13.622866 | 2.061801  | 0.039059  | H | 4.708129   | 0.651940  | 0.564775  |
| H  | -14.575300 | 1.237900  | -1.221701 | C | 3.641761   | -0.732185 | -0.574880 |
| H  | -15.380308 | 1.889817  | 0.222365  | H | 3.681424   | -0.780532 | -1.670131 |
| C  | -15.371211 | -0.940345 | 0.313087  | C | 3.463314   | -2.158933 | -0.022857 |
| O  | -15.208360 | -1.902348 | -0.434522 | H | 4.321723   | -2.766940 | -0.318575 |
| N  | -16.542649 | -0.660153 | 0.938193  | H | 3.397447   | -2.140558 | 1.070012  |
| H  | -16.580693 | 0.139865  | 1.554113  | H | 2.554434   | -2.624198 | -0.418783 |
| C  | -17.744442 | -1.462067 | 0.767801  | C | 2.489371   | 0.192513  | -0.138293 |
| H  | -18.079890 | -1.871574 | 1.726983  | O | 2.672346   | 1.092448  | 0.686260  |
| H  | -18.555052 | -0.868149 | 0.330717  | N | 1.290345   | -0.071256 | -0.694918 |
| H  | -17.498774 | -2.283563 | 0.094279  | H | 1.152324   | -0.825069 | -1.362072 |
| C  | -1.192544  | 2.847110  | -0.621296 | C | 0.071661   | 0.630773  | -0.328666 |
| N  | -2.332780  | 2.920423  | -1.401780 | H | 0.073880   | 0.792572  | 0.754538  |
| C  | -1.357841  | 3.595981  | 0.522969  | C | -0.012619  | 2.018342  | -1.032702 |
| C  | -3.163533  | 3.697803  | -0.743438 | H | 0.922081   | 2.536529  | -0.795839 |
| N  | -2.622034  | 4.138926  | 0.428095  | H | -0.049535  | 1.859764  | -2.115112 |
| H  | -0.705907  | 3.800649  | 1.359313  | C | -1.086314  | -0.298392 | -0.731405 |
| H  | -4.158524  | 3.977433  | -1.062169 | O | -0.925170  | -1.155895 | -1.603881 |
| H  | -3.075157  | 4.718742  | 1.119370  | N | -2.248180  | -0.112894 | -0.072112 |
| <u>Ac-(Ala)<sub>4</sub>-Hie-(Ala)<sub>4</sub>-NHMe C7<sub>eq</sub></u> |            |           |           | H | -2.378760  | 0.682692  | 0.546531  |
| C  | 14.367474  | -1.377399 | 0.256760  | C | -3.479752  | -0.772986 | -0.473517 |
| H  | 14.795873  | -1.281026 | -0.745336 | H | -3.533490  | -0.777859 | -1.569373 |
| H  | 14.184043  | -2.434573 | 0.469329  | C | -3.540450  | -2.226621 | 0.031829  |
| H  | 15.097792  | -1.019949 | 0.989716  | H | -2.684985  | -2.777195 | -0.366829 |
| C  | 13.074758  | -0.606043 | 0.445254  | H | -3.504261  | -2.254087 | 1.125914  |
| O  | 12.435855  | -0.660676 | 1.499196  | H | -4.458019  | -2.724573 | -0.299614 |
| N  | 12.667247  | 0.155999  | -0.606707 | C | -4.636422  | 0.073226  | 0.087741  |
| H  | 13.188571  | 0.129853  | -1.472126 | O | -4.443805  | 0.964854  | 0.917511  |
| C  | 11.505162  | 1.048997  | -0.539698 | N | -5.862547  | -0.247770 | -0.379977 |
| H  | 11.479448  | 1.438943  | 0.484316  | H | -6.011352  | -1.018010 | -1.025124 |
| C  | 11.658114  | 2.191363  | -1.538322 | C | -7.082960  | 0.363294  | 0.115668  |
| H  | 12.585306  | 2.740598  | -1.346825 | H | -7.007491  | 0.458516  | 1.205755  |
| H  | 11.660773  | 1.815119  | -2.566126 | C | -7.316447  | 1.761234  | -0.487840 |
| H  | 10.816929  | 2.883536  | -1.452336 | H | -6.461360  | 2.397898  | -0.247118 |
| C  | 10.189054  | 0.267925  | -0.775652 | H | -7.416886  | 1.696145  | -1.576136 |
| O  | 9.508966   | 0.427491  | -1.794920 | H | -8.222016  | 2.223423  | -0.080023 |
| N  | 9.854216   | -0.581239 | 0.222274  | C | -8.226951  | -0.603139 | -0.243041 |
| H  | 10.520021  | -0.683820 | 0.989809  | O | -8.062686  | -1.512500 | -1.058536 |
| C  | 8.750669   | -1.541966 | 0.108331  | N | -9.402523  | -0.366275 | 0.377523  |
| H  | 8.702979   | -1.849143 | -0.944300 | H | -9.535133  | 0.421822  | 1.004635  |
| C  | 9.013755   | -2.750639 | 1.001129  | C | -10.619608 | -1.098535 | 0.069806  |
| H  | 9.967456   | -3.216553 | 0.734527  | H | -10.685025 | -1.224765 | -1.017865 |
| H  | 9.038168   | -2.458594 | 2.054877  | C | -10.641865 | -2.490055 | 0.730101  |

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|  |            |           |           |   |           |           |           |
|--|------------|-----------|-----------|---|-----------|-----------|-----------|
| H  | -6.518936  | -1.564924 | 0.573997  | H | 8.215441  | -3.487605 | 0.884751  |
| C  | -8.268742  | -1.655532 | -0.683593 | C | 7.395130  | -0.876585 | 0.450532  |
| H  | -8.299058  | -1.236263 | -1.697329 | O | 6.734298  | -1.208586 | 1.439799  |
| C  | -8.033882  | -3.161565 | -0.741106 | N | 6.997430  | 0.073725  | -0.427548 |
| H  | -7.080871  | -3.376837 | -1.234579 | H | 7.635496  | 0.302952  | -1.190980 |
| H  | -8.023767  | -3.592119 | 0.264422  | C | 5.839390  | 0.940490  | -0.183954 |
| H  | -8.838932  | -3.648545 | -1.296902 | H | 5.786606  | 1.104185  | 0.899720  |
| C  | -9.626105  | -1.325777 | -0.013580 | C | 6.015231  | 2.269910  | -0.910820 |
| O  | -10.307689 | -2.192688 | 0.544136  | H | 6.941239  | 2.755712  | -0.587841 |
| N  | -9.995824  | -0.028637 | -0.108352 | H | 6.044618  | 2.121263  | -1.994090 |
| H  | -9.346212  | 0.611185  | -0.566852 | H | 5.174742  | 2.933614  | -0.693503 |
| C  | -11.164829 | 0.520281  | 0.588580  | C | 4.524195  | 0.241066  | -0.603723 |
| H  | -11.262925 | -0.040824 | 1.525931  | O | 3.842763  | 0.640021  | -1.554488 |
| C  | -10.952850 | 2.002563  | 0.877430  | N | 4.185199  | -0.820833 | 0.163678  |
| H  | -10.039968 | 2.149544  | 1.463814  | H | 4.842976  | -1.098464 | 0.894077  |
| H  | -10.880922 | 2.571670  | -0.053907 | C | 3.068529  | -1.712631 | -0.165346 |
| H  | -11.802534 | 2.401964  | 1.436976  | H | 3.015696  | -1.768515 | -1.260028 |
| C  | -12.461333 | 0.293676  | -0.234350 | C | 3.310313  | -3.098013 | 0.424917  |
| O  | -13.072958 | 1.220333  | -0.756446 | H | 4.258447  | -3.503954 | 0.058708  |
| N  | -12.843364 | -1.010532 | -0.292644 | H | 3.333809  | -3.056274 | 1.517514  |
| H  | -12.202205 | -1.697404 | 0.099722  | H | 2.502350  | -3.776922 | 0.140492  |
| C  | -13.979455 | -1.451387 | -1.079019 | C | 1.728473  | -1.116745 | 0.330986  |
| H  | -13.664188 | -1.990890 | -1.982139 | O | 1.087997  | -1.624994 | 1.257033  |
| H  | -14.625644 | -2.110384 | -0.488084 | N | 1.325630  | -0.012361 | -0.340889 |
| H  | -14.543420 | -0.566343 | -1.377808 | H | 1.971272  | 0.365030  | -1.036869 |
| C  | -0.454636  | 3.254614  | 0.367398  | C | 0.215224  | 0.828446  | 0.120752  |
| N  | -0.143685  | 3.653943  | 1.655225  | H | 0.219060  | 0.809418  | 1.216865  |
| C  | -1.606781  | 3.872724  | -0.054138 | C | 0.409935  | 2.273170  | -0.365580 |
| C  | -1.088213  | 4.499951  | 2.001234  | H | 1.460827  | 2.540386  | -0.206293 |
| N  | -2.003502  | 4.670253  | 1.000989  | H | 0.204448  | 2.318013  | -1.439147 |
| H  | -2.165988  | 3.806094  | -0.974318 | C | -1.133480 | 0.243614  | -0.363324 |
| H  | -1.162172  | 5.017338  | 2.948568  | O | -1.812176 | 0.779595  | -1.248152 |
| H  | -2.811753  | 5.275242  | 1.019887  | N | -1.498056 | -0.900809 | 0.259971  |
| <u>Ac-(Ala)<sub>13</sub>-NH<sub>2</sub> αR</u> |            |           |           |   |           |           |           |
| C  | -11.812373 | -0.253462 | 1.390075  | H | -0.813727 | -1.311067 | 0.898828  |
| C  | -10.526084 | -0.393969 | 0.602853  | C | -2.607739 | -1.738431 | -0.208185 |
| N  | -10.636597 | -0.367804 | -0.763516 | H | -2.648954 | -1.636492 | -1.300734 |
| O  | -9.429175  | -0.517592 | 1.148542  | C | -2.363036 | -3.193849 | 0.178240  |
| C  | -9.520281  | -0.791128 | -1.612974 | H | -1.410289 | -3.538133 | -0.235789 |
| C  | -8.282146  | 0.102953  | -1.452256 | H | -2.343170 | -3.309325 | 1.265755  |
| N  | -8.490110  | 1.397275  | -1.120954 | H | -3.166571 | -3.827956 | -0.204023 |
| O  | -7.156057  | -0.361971 | -1.651185 | C | -3.962872 | -1.233236 | 0.342336  |
| C  | -7.379524  | 2.322684  | -0.916144 | O | -4.657905 | -1.914837 | 1.103710  |
| C  | -6.384927  | 1.837672  | 0.157541  | N | -4.325291 | -0.005371 | -0.096568 |
| N  | -6.874370  | 1.113775  | 1.191316  | H | -3.662002 | 0.490432  | -0.695450 |
| O  | -5.198694  | 2.162653  | 0.062424  | C | -5.476620 | 0.717922  | 0.450705  |
| C  | -5.977598  | 0.610902  | 2.231285  | H | -5.555198 | 0.436420  | 1.508459  |
| C  | -4.977145  | -0.435791 | 1.700038  | C | -5.264748 | 2.222716  | 0.319715  |
| N  | -5.429481  | -1.287215 | 0.744792  | H | -4.331442 | 2.515305  | 0.810625  |
| O  | -3.841892  | -0.498989 | 2.174298  | H | -5.228916 | 2.516952  | -0.733485 |
| C  | -4.533075  | -2.254346 | 0.117031  | H | -6.096925 | 2.761456  | 0.780381  |
| C  | -3.438976  | -1.568947 | -0.726244 | C | -6.791982 | 0.279250  | -0.238311 |
| N  | -3.819388  | -0.494907 | -1.460767 | O | -7.448927 | 1.050253  | -0.946204 |
|  |            |           |           | N | -7.158301 | -0.998411 | 0.013744  |

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|   |            |           |           |   |            |           |           |
|---|------------|-----------|-----------|---|------------|-----------|-----------|
| H | 0.643017   | -0.885322 | 3.043196  | O | -2.285865  | -2.002670 | -0.722024 |
| H | -0.253876  | -1.619106 | -0.368801 | C | -2.841381  | 0.283105  | -2.216730 |
| H | 2.191977   | -3.035398 | -0.923674 | C | -1.774325  | 0.913532  | -1.295498 |
| H | 1.398100   | 0.467112  | -1.146982 | N | -2.217125  | 1.472848  | -0.145034 |
| H | 3.941491   | 1.193544  | -2.287169 | O | -0.587222  | 0.903343  | -1.627422 |
| H | 2.936662   | 0.830721  | 1.152131  | C | -1.284625  | 2.063931  | 0.811742  |
| H | 5.496682   | 1.734804  | 2.152033  | C | -0.286846  | 1.022859  | 1.361050  |
| H | 4.352111   | -1.515374 | 1.165304  | N | -0.794588  | -0.186814 | 1.693075  |
| H | 6.694921   | -2.841340 | 2.203703  | O | 0.903253   | 1.315531  | 1.498401  |
| H | 6.104784   | -1.207763 | -0.890361 | C | 0.068970   | -1.254721 | 2.188099  |
| H | 8.680732   | -2.214818 | -1.873094 | C | 1.136764   | -1.659671 | 1.150030  |
| H | 7.499991   | 0.840460  | -0.555656 | N | 0.721885   | -1.777054 | -0.132689 |
| H | 10.202930  | 1.924643  | -1.067703 | O | 2.295838   | -1.882661 | 1.507719  |
| H | 8.487965   | 0.961094  | 1.578244  | C | 1.660269   | -2.119296 | -1.197587 |
| H | 8.966850   | 2.246029  | 2.629278  | C | 2.769263   | -1.057627 | -1.355712 |
| C | -9.956063  | -0.834883 | -3.082252 | N | 2.378726   | 0.236633  | -1.280222 |
| H | -10.769175 | -1.555423 | -3.223343 | O | 3.935843   | -1.398460 | -1.562061 |
| H | -10.292699 | 0.149069  | -3.426943 | C | 3.352983   | 1.317369  | -1.372942 |
| H | -9.113854  | -1.148702 | -3.703907 | C | 4.394938   | 1.254370  | -0.237276 |
| C | -7.907607  | 3.717798  | -0.567223 | N | 3.932336   | 0.969256  | 1.001033  |
| H | -7.066262  | 4.399796  | -0.421764 | O | 5.583084   | 1.483999  | -0.474720 |
| H | -8.531114  | 4.109919  | -1.377801 | C | 4.845595   | 0.855561  | 2.133419  |
| H | -8.496498  | 3.699003  | 0.357096  | C | 5.817218   | -0.337475 | 2.004189  |
| C | -6.781838  | 0.050081  | 3.409318  | N | 5.330401   | -1.463195 | 1.433918  |
| H | -7.385304  | 0.840115  | 3.867939  | O | 6.966432   | -0.250553 | 2.441609  |
| H | -7.450499  | -0.754809 | 3.088138  | C | 6.175678   | -2.638664 | 1.262344  |
| H | -6.095867  | -0.342928 | 4.164613  | C | 7.311313   | -2.433980 | 0.234921  |
| C | -5.330722  | -3.265327 | -0.713912 | N | 7.043312   | -1.582148 | -0.794453 |
| H | -6.008640  | -3.834221 | -0.068967 | O | 8.356441   | -3.064707 | 0.348255  |
| H | -5.920792  | -2.762934 | -1.487700 | C | 8.006430   | -1.355100 | -1.860869 |
| H | -4.645563  | -3.967229 | -1.197754 | C | 8.931856   | -0.134513 | -1.656772 |
| C | -3.546726  | 1.351064  | -3.058788 | N | 8.477248   | 0.854632  | -0.835571 |
| H | -4.240648  | 0.883669  | -3.766035 | O | 10.000876  | -0.085806 | -2.260301 |
| H | -4.102738  | 2.046722  | -2.421027 | C | 9.175355   | 2.132091  | -0.751114 |
| H | -2.806389  | 1.919542  | -3.628809 | C | 9.272440   | 2.694567  | 0.679600  |
| C | -2.055435  | 2.736589  | 1.952891  | N | 8.932208   | 1.863825  | 1.695103  |
| H | -2.713851  | 3.519567  | 1.562118  | O | 9.680327   | 3.839506  | 0.864204  |
| H | -2.663174  | 2.004971  | 2.495857  | H | -12.660060 | 0.079437  | 0.784165  |
| H | -1.350478  | 3.193115  | 2.653592  | H | -11.653857 | 0.450122  | 2.211220  |
| C | -0.774000  | -2.465093 | 2.603950  | H | -12.059688 | -1.223668 | 1.835302  |
| H | -1.487126  | -2.185454 | 3.386384  | H | -11.564093 | -0.408075 | -1.167188 |
| H | -1.330360  | -2.860901 | 1.748066  | H | -9.181894  | -1.785686 | -1.301342 |
| H | -0.120737  | -3.252214 | 2.991467  | H | -9.437321  | 1.701625  | -0.937368 |
| C | 0.909225   | -2.323456 | -2.517674 | H | -6.790569  | 2.374087  | -1.836739 |
| H | 0.170839   | -3.126070 | -2.418667 | H | -7.829647  | 0.763355  | 1.167474  |
| H | 0.390507   | -1.405831 | -2.813775 | H | -5.353393  | 1.440871  | 2.571448  |
| H | 1.618594   | -2.595182 | -3.304806 | H | -6.313836  | -1.094106 | 0.288069  |
| C | 2.640468   | 2.674035  | -1.385887 | H | -3.986734  | -2.771798 | 0.908855  |
| H | 1.955554   | 2.738161  | -2.238050 | H | -4.785005  | -0.186689 | -1.437854 |
| H | 2.066620   | 2.817634  | -0.464670 | H | -2.278935  | -0.393774 | -2.865670 |
| H | 3.379419   | 3.476356  | -1.469093 | H | -3.213978  | 1.524205  | 0.046190  |
| C | 4.052163   | 0.755818  | 3.440818  | H | -0.660334  | 2.800027  | 0.296611  |
| H | 3.421737   | 1.640882  | 3.577213  | H | -1.794513  | -0.355718 | 1.627309  |

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|   |            |           |           |  |           |           |           |
|---|------------|-----------|-----------|--|-----------|-----------|-----------|
| N | -10.023733 | -0.200914 | 0.044277  | H  | 3.411516  | -0.132512 | 3.434792  |
| O | -8.645519  | 1.159197  | 1.238248  | H  | 4.744834  | 0.683108  | 4.284198  |
| C | -11.236719 | 0.570435  | 0.261108  | C  | 5.321826  | -3.846453 | 0.860038  |
| C | -12.407012 | -0.371874 | -0.079577 | H  | 4.565100  | -4.056618 | 1.623369  |
| N | -13.629115 | 0.064025  | 0.289883  | H  | 4.813064  | -3.656461 | -0.091433 |
| O | -12.215828 | -1.439295 | -0.666721 | H  | 5.965922  | -4.722805 | 0.745743  |
| C | -14.856853 | -0.628086 | -0.066065 | C  | 7.294507  | -1.228768 | -3.215138 |
| C | -15.981212 | 0.420265  | 0.031334  | H  | 6.743207  | -2.146403 | -3.444362 |
| N | -17.158269 | 0.061461  | -0.522553 | H  | 6.580877  | -0.396284 | -3.204314 |
| O | -15.798244 | 1.500895  | 0.596115  | H  | 8.032363  | -1.045185 | -4.001001 |
| C | -18.359511 | 0.874137  | -0.424716 | C  | 8.570667  | 3.181072  | -1.696515 |
| C | -19.540822 | -0.074743 | -0.697567 | H  | 8.679379  | 2.849159  | -2.734084 |
| N | -20.762972 | 0.416579  | -0.399606 | H  | 7.504588  | 3.318139  | -1.484040 |
| O | -19.362399 | -1.198690 | -1.171609 | H  | 9.083078  | 4.136703  | -1.563658 |
| C | -21.990795 | -0.295365 | -0.708141 | <b>Ac-(Ala)<sub>13</sub>-NH<sub>2</sub> C5</b> |           |           |           |
| C | -23.105810 | 0.764852  | -0.739380 | C  | 24.577886 | 0.900097  | -0.209542 |
| N | -24.292770 | 0.349467  | -1.251054 | C  | 23.398533 | 0.220711  | -0.892107 |
| O | -22.926404 | 1.897203  | -0.305277 | N  | 22.217042 | 0.285516  | -0.219502 |
| H | 25.376901  | 0.165248  | -0.070918 | O  | 23.514147 | -0.349624 | -1.974033 |
| H | 24.329032  | 1.343462  | 0.759545  | C  | 20.981570 | -0.235879 | -0.770982 |
| H | 24.965893  | 1.681721  | -0.870502 | C  | 19.833440 | 0.474811  | -0.033438 |
| H | 22.104218  | 0.834716  | 0.625336  | N  | 18.606995 | 0.316102  | -0.579530 |
| H | 20.943189  | 0.015656  | -1.838588 | O  | 20.032592 | 1.129943  | 0.992079  |
| H | 18.448138  | -0.281188 | -1.385455 | C  | 17.395580 | 0.813632  | 0.048413  |
| H | 17.466069  | 0.637951  | 1.128878  | C  | 16.233919 | -0.012596 | -0.533499 |
| H | 14.931580  | 0.741733  | 0.899660  | N  | 15.055877 | 0.108543  | 0.114850  |
| H | 13.770506  | -0.390471 | -1.443635 | O  | 16.387617 | -0.718506 | -1.532588 |
| H | 11.283929  | -0.658515 | -0.921419 | C  | 13.826508 | -0.507891 | -0.354515 |
| H | 10.307678  | 0.522004  | 1.477589  | C  | 12.675714 | 0.271516  | 0.309483  |
| H | 7.758390   | 0.601854  | 1.210765  | N  | 11.446893 | 0.031860  | -0.193715 |
| H | 6.634170   | -0.808359 | -0.992641 | O  | 12.886332 | 1.045590  | 1.246160  |
| H | 4.138534   | -0.996648 | -0.488444 | C  | 10.232963 | 0.583136  | 0.384924  |
| H | 3.111461   | 0.475831  | 1.720555  | C  | 9.080108  | -0.314189 | -0.104421 |
| H | 0.575538   | 0.557888  | 1.363726  | N  | 7.896279  | -0.125071 | 0.514058  |
| H | -0.504525  | -1.067069 | -0.711856 | O  | 9.249612  | -1.132723 | -1.011137 |
| H | -3.015589  | -1.131075 | -0.304448 | C  | 6.671888  | -0.792560 | 0.103415  |
| H | -4.096057  | 0.566621  | 1.706397  | C  | 5.514907  | 0.067089  | 0.647933  |
| H | -6.612233  | 0.681479  | 1.216842  | N  | 4.293674  | -0.227476 | 0.157559  |
| H | -7.641294  | -1.112136 | -0.741927 | O  | 5.717092  | 0.950346  | 1.484784  |
| H | -10.170487 | -1.075622 | -0.451984 | C  | 3.073577  | 0.408633  | 0.626363  |
| H | -11.287659 | 0.853435  | 1.319674  | C  | 1.919621  | -0.521219 | 0.204335  |
| H | -13.773994 | 0.975207  | 0.715837  | N  | 0.720115  | -0.242587 | 0.754357  |
| H | -14.770070 | -0.981140 | -1.100819 | O  | 2.103067  | -1.440546 | -0.597098 |
| H | -17.305923 | -0.855512 | -0.934347 | C  | -0.504820 | -0.928036 | 0.376032  |
| H | -18.432225 | 1.268213  | 0.596360  | C  | -1.658830 | 0.010203  | 0.778688  |
| H | -20.899449 | 1.368514  | -0.072135 | N  | -2.866816 | -0.305369 | 0.269368  |
| H | -21.887272 | -0.751760 | -1.700627 | O  | -1.465988 | 0.969384  | 1.529829  |
| H | -24.424125 | -0.567825 | -1.649437 | C  | -4.088148 | 0.399558  | 0.622221  |
| H | -25.060594 | 1.005720  | -1.280525 | C  | -5.247551 | -0.539215 | 0.235942  |
| C | -18.340460 | 2.057589  | -1.410549 | N  | -6.462766 | -0.178848 | 0.696736  |
| H | -17.465102 | 2.678200  | -1.204445 | O  | -5.053604 | -1.537146 | -0.462334 |
| H | -18.287442 | 1.696245  | -2.442782 | C  | -7.688181 | -0.867612 | 0.326221  |
| H | -19.237299 | 2.677088  | -1.303603 | C  | -8.831481 | 0.134081  | 0.578108  |

|   |            |           |           |   |            |           |           |
|---|------------|-----------|-----------|---|------------|-----------|-----------|
| C | 16.778412  | 1.376967  | -0.283406 | C   | 20.885507  | -1.767558 | -0.629766 |
| C | 15.465759  | 0.591260  | -0.522512 | H   | 19.965666  | -2.154520 | -1.082227 |
| N | 15.085209  | -0.192656 | 0.512006  | H   | 21.739943  | -2.220510 | -1.138421 |
| O | 14.826585  | 0.691842  | -1.575386 | H   | 20.903106  | -2.057164 | 0.426340  |
| C | 13.982421  | -1.155831 | 0.412347  | C   | -15.126943 | -1.837700 | 0.848073  |
| C | 12.617001  | -0.465389 | 0.649989  | H   | -14.289921 | -2.536554 | 0.774360  |
| N | 12.260530  | 0.421953  | -0.307866 | H   | -15.232044 | -1.515441 | 1.889242  |
| O | 11.912681  | -0.726877 | 1.630722  | H   | -16.042327 | -2.360949 | 0.551280  |
| C | 11.102406  | 1.311689  | -0.170985 | C   | -7.884940  | -2.170283 | 1.123568  |
| C | 9.795204   | 0.595028  | -0.587166 | H   | -7.036202  | -2.833987 | 0.940338  |
| N | 9.428353   | -0.422043 | 0.227132  | H   | -7.946918  | -1.957653 | 2.195897  |
| O | 9.140681   | 0.945190  | -1.575245 | H   | -8.801254  | -2.686328 | 0.817405  |
| C | 8.328878   | -1.336871 | -0.096665 | C   | 6.600727   | -2.241202 | 0.620863  |
| C | 6.966079   | -0.732635 | 0.319541  | H   | 7.458096   | -2.800317 | 0.237805  |
| N | 6.590428   | 0.351880  | -0.398384 | H   | 6.623157   | -2.259023 | 1.715467  |
| O | 6.280820   | -1.219345 | 1.225579  | H   | 5.684529   | -2.737352 | 0.283171  |
| C | 5.448018   | 1.192015  | -0.023626 | C   | -11.270033 | 1.849823  | -0.595696 |
| C | 4.117506   | 0.600432  | -0.549386 | H   | -10.401581 | 2.466246  | -0.351250 |
| N | 3.770602   | -0.584128 | 0.004949  | H   | -11.241514 | 1.597828  | -1.660890 |
| O | 3.426999   | 1.185512  | -1.391440 | H   | -12.175885 | 2.433503  | -0.400128 |
| C | 2.643523   | -1.386581 | -0.481021 | C   | 2.901696   | 1.826015  | 0.048844  |
| C | 1.307863   | -0.896313 | 0.128633  | H   | 3.761839   | 2.435941  | 0.335642  |
| N | 0.932394   | 0.342618  | -0.266782 | H   | 2.838092   | 1.788958  | -1.043660 |
| O | 0.641348   | -1.595261 | 0.899889  | H   | 1.994406   | 2.303032  | 0.434486  |
| C | -0.188009  | 1.062748  | 0.346345  | C   | 17.197070  | 2.322150  | -0.192387 |
| C | -1.535781  | 0.638952  | -0.285441 | H   | 18.062591  | 2.861343  | 0.200619  |
| N | -1.898287  | -0.640059 | -0.031287 | H   | 17.103132  | 2.530054  | -1.263384 |
| O | -2.223349  | 1.421392  | -0.951048 | H   | 16.298380  | 2.690487  | 0.314326  |
| C | -3.035659  | -1.286777 | -0.693955 | C   | -4.196834  | 1.761128  | -0.089240 |
| C | -4.366439  | -0.944083 | 0.019193  | H   | -3.332979  | 2.374282  | 0.178690  |
| N | -4.724624  | 0.358832  | -0.057654 | H   | -4.215776  | 1.625236  | -1.175617 |
| O | -5.044982  | -1.803254 | 0.592821  | H   | -5.105889  | 2.293373  | 0.210653  |
| C | -5.840668  | 0.919106  | 0.710590  | C   | -0.629729  | -2.306368 | 1.051179  |
| C | -7.187724  | 0.687137  | -0.014932 | H   | 0.229630   | -2.920960 | 0.771535  |
| N | -7.568147  | -0.609578 | -0.091906 | H   | -0.652573  | -2.198782 | 2.140616  |
| O | -7.859169  | 1.620904  | -0.467490 | H   | -1.542558  | -2.821213 | 0.732847  |
| C | -8.706168  | -1.052975 | -0.903967 | C   | 10.018361  | 2.055329  | -0.013546 |
| C | -10.040982 | -0.886924 | -0.137200 | H   | 10.875762  | 2.644735  | 0.320692  |
| N | -10.386016 | 0.396413  | 0.117553  | H   | 9.923221   | 2.148469  | -1.100444 |
| O | -10.732892 | -1.856512 | 0.192533  | H   | 9.114500   | 2.463956  | 0.451037  |
| C | -11.514225 | 0.756381  | 0.982272  | C   | 13.766722  | -2.009236 | -0.015858 |
| C | -12.848976 | 0.731931  | 0.197685  | H   | 14.620912  | -2.512933 | -0.475104 |
| N | -13.235739 | -0.498772 | -0.211213 | H   | 13.804552  | -2.158626 | 1.068225  |
| O | -13.503377 | 1.757726  | -0.016249 | H   | 12.847541  | -2.465724 | -0.398594 |
| C | -14.368254 | -0.711293 | -1.118565 | C   | -22.289327 | -1.405148 | 0.317840  |
| C | -15.708939 | -0.748009 | -0.343281 | H   | -21.453378 | -2.108569 | 0.333112  |
| N | -16.056003 | 0.427697  | 0.227359  | H   | -22.416804 | -0.978530 | 1.317860  |
| O | -16.396626 | -1.772649 | -0.275721 | H   | -23.199862 | -1.955587 | 0.056816  |
| C | -17.204738 | 0.573123  | 1.129665  | <u>Ac-(Ala)<sub>13</sub>-NH<sub>2</sub> C7<sub>eq</sub></u> |            |           |           |
| C | -18.514852 | 0.766205  | 0.320190  | C   | 19.588363  | -1.020143 | 0.752180  |
| N | -18.929124 | -0.364161 | -0.316094 | C   | 18.296252  | -0.231346 | 0.848849  |
| O | -19.116940 | 1.830845  | 0.285866  | N   | 17.934688  | 0.474649  | -0.257803 |
| H | 20.286874  | -0.639356 | 1.504009  | O   | 17.616971  | -0.224919 | 1.878781  |

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|   |            |           |           |   |            |           |           |
|---|------------|-----------|-----------|---|------------|-----------|-----------|
| H                                       | -12.090464 | 2.371138  | 2.300123  | H | 19.384767  | -2.066464 | 0.997977  |
| C                                       | -16.974785 | 1.738775  | 2.084714  | H | 20.064084  | -0.967971 | -0.231629 |
| H                                       | -16.046682 | 1.594745  | 2.647229  | H | 18.488875  | 0.399380  | -1.099611 |
| H                                       | -16.922549 | 2.683157  | 1.535278  | H | 16.718793  | 1.823909  | 0.715589  |
| H                                       | -17.807411 | 1.817568  | 2.788499  | H | 15.723611  | -0.255496 | 1.306893  |
| C                                       | 14.198684  | -2.303490 | 1.393751  | H | 13.978694  | -1.531980 | -0.618848 |
| H                                       | 15.160401  | -2.789059 | 1.201363  | H | 12.935720  | 0.601647  | -1.052813 |
| H                                       | 14.178486  | -1.942389 | 2.425939  | H | 11.010991  | 1.554673  | 0.895398  |
| H                                       | 13.402035  | -3.044265 | 1.290822  | H | 10.063921  | -0.661167 | 0.990709  |
| C                                       | 8.559423   | -2.691191 | 0.566223  | H | 8.314850   | -1.445166 | -1.188713 |
| H                                       | 9.520653   | -3.106648 | 0.248317  | H | 7.259723   | 0.709052  | -1.083110 |
| H                                       | 8.549979   | -2.598414 | 1.655959  | H | 5.390276   | 1.183596  | 1.072717  |
| H                                       | 7.764679   | -3.388604 | 0.289966  | H | 4.432227   | -1.002707 | 0.662220  |
| C                                       | 2.881482   | -2.862694 | -0.178518 | H | 2.581099   | -1.225524 | -1.564939 |
| H                                       | 3.816911   | -3.194962 | -0.639155 | H | 1.580632   | 0.855310  | -0.868265 |
| H                                       | 2.930899   | -3.036179 | 0.900327  | H | -0.219822  | 0.765702  | 1.402574  |
| H                                       | 2.059997   | -3.467429 | -0.570413 | H | -1.230852  | -1.218639 | 0.483147  |
| C                                       | -2.816540  | -2.794938 | -0.759174 | H | -3.096684  | -0.866931 | -1.706389 |
| H                                       | -1.881629  | -3.017280 | -1.282826 | H | -4.070147  | 0.995462  | -0.517296 |
| H                                       | -2.777052  | -3.226505 | 0.245130  | H | -5.885141  | 0.366713  | 1.657990  |
| H                                       | -3.642338  | -3.275267 | -1.289672 | H | -6.914659  | -1.308317 | 0.267250  |
| C                                       | -8.501506  | -2.497627 | -1.349073 | H | -8.752820  | -0.389270 | -1.777052 |
| H                                       | -7.566750  | -2.589879 | -1.910778 | H | -9.722399  | 1.121829  | -0.161009 |
| H                                       | -8.470509  | -3.170309 | -0.487075 | H | -11.581165 | -0.017907 | 1.757182  |
| H                                       | -9.330076  | -2.818722 | -1.984989 | H | -12.596652 | -1.273752 | -0.026096 |
| C                                       | -14.161478 | -1.990543 | -1.923364 | H | -14.405544 | 0.157066  | -1.788610 |
| H                                       | -13.220241 | -1.938415 | -2.479601 | H | -15.399610 | 1.203917  | 0.134327  |
| H                                       | -14.143143 | -2.864801 | -1.266197 | H | -17.293068 | -0.368402 | 1.685268  |
| H                                       | -14.983546 | -2.129940 | -2.629746 | H | -18.293825 | -1.156299 | -0.388947 |
| <u>Ac-(Ala-Ala-Gln-Ala-Ala)₃-NH₂ αR</u> |            |           |           | H | -19.699334 | -0.277523 | -0.965181 |
| H                                       | -14.141746 | -2.103727 | -1.429453 | C | 16.976159  | 2.460379  | -1.338411 |
| C                                       | -13.142110 | -2.308339 | -1.823066 | H | 17.012019  | 2.027041  | -2.342806 |
| H                                       | -13.207914 | -2.430817 | -2.909169 | H | 16.138417  | 3.161783  | -1.321086 |
| H                                       | -12.781128 | -3.254951 | -1.410571 | H | 17.900539  | 3.013516  | -1.144813 |
| C                                       | -12.133923 | -1.219400 | -1.518589 | C | 11.319411  | 2.582591  | -0.986463 |
| O                                       | -10.940314 | -1.332870 | -1.804557 | H | 12.234622  | 3.086891  | -0.661234 |
| N                                       | -12.609347 | -0.102638 | -0.886580 | H | 11.394891  | 2.352670  | -2.053179 |
| H                                       | -13.611198 | -0.002170 | -0.784944 | H | 10.475524  | 3.264699  | -0.857633 |
| C                                       | -11.799227 | 1.113379  | -0.771553 | C | 5.656464   | 2.615734  | -0.530429 |
| H                                       | -11.416512 | 1.384945  | -1.761763 | H | 6.590726   | 3.023912  | -0.132599 |
| C                                       | -12.646277 | 2.264633  | -0.217513 | H | 5.690873   | 2.639056  | -1.623410 |
| H                                       | -13.046239 | 2.022726  | 0.773600  | H | 4.828324   | 3.255179  | -0.215445 |
| H                                       | -12.027526 | 3.160842  | -0.129584 | C | 0.027748   | 2.568262  | 0.227436  |
| H                                       | -13.481092 | 2.490340  | -0.889972 | H | 0.976645   | 2.850437  | 0.693931  |
| C                                       | -10.536409 | 0.921097  | 0.083028  | H | 0.035874   | 2.878767  | -0.821239 |
| O                                       | -9.565112  | 1.660933  | -0.081709 | H | -0.783690  | 3.107546  | 0.722387  |
| N                                       | -10.558126 | -0.069057 | 1.006702  | C | -5.603688  | 2.402847  | 0.974934  |
| H                                       | -11.376608 | -0.660414 | 1.061471  | H | -4.656695  | 2.543956  | 1.504995  |
| C                                       | -9.392067  | -0.391751 | 1.823088  | H | -5.578657  | 2.966465  | 0.037946  |
| H                                       | -9.141172  | 0.470926  | 2.448227  | H | -6.413770  | 2.813644  | 1.582605  |
| C                                       | -9.680236  | -1.613842 | 2.704433  | C | -11.273366 | 2.121728  | 1.618645  |
| H                                       | -10.559031 | -1.436894 | 3.334145  | H | -10.333495 | 2.115710  | 2.179461  |
| H                                       | -9.838028  | -2.509804 | 2.093984  | H | -11.232728 | 2.904730  | 0.856046  |

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|   |           |           |           |   |           |           |           |
|---|-----------|-----------|-----------|---|-----------|-----------|-----------|
| H | -0.695884 | -1.145810 | -1.999722 | H | -8.823400 | -1.800336 | 3.356162  |
| C | -1.851382 | 0.414098  | -2.962582 | C | -8.137962 | -0.660639 | 0.979252  |
| H | -2.608128 | -0.262583 | -3.372317 | O | -7.019309 | -0.459320 | 1.476818  |
| H | -2.334787 | 1.363850  | -2.708267 | N | -8.307917 | -1.139915 | -0.266728 |
| H | -1.094347 | 0.601431  | -3.728880 | H | -9.242783 | -1.270857 | -0.646231 |
| C | -0.049568 | 0.704472  | -1.222763 | C | -7.151232 | -1.522838 | -1.061511 |
| O | 1.096303  | 0.550574  | -1.651169 | H | -6.517828 | -2.164875 | -0.443225 |
| N | -0.399469 | 1.692683  | -0.366158 | C | -7.548078 | -2.289704 | -2.335298 |
| H | -1.320404 | 1.668208  | 0.058325  | H | -6.612486 | -2.537962 | -2.847060 |
| C | 0.595109  | 2.599267  | 0.205960  | H | -8.115177 | -1.630028 | -3.002973 |
| H | 1.225538  | 2.968645  | -0.607280 | C | -8.386042 | -3.568578 | -2.095840 |
| C | -0.100696 | 3.773929  | 0.912309  | H | -8.440047 | -4.122289 | -3.041169 |
| H | 0.656249  | 4.385849  | 1.411990  | H | -9.407843 | -3.293684 | -1.824615 |
| H | -0.762832 | 3.377562  | 1.691922  | C | -7.842246 | -4.445862 | -0.971038 |
| C | -0.904231 | 4.655310  | -0.059567 | O | -8.149945 | -4.262197 | 0.202281  |
| H | -1.581564 | 4.044453  | -0.664021 | N | -6.950859 | -5.407553 | -1.347078 |
| H | -0.214831 | 5.164162  | -0.744023 | H | -6.573459 | -6.018330 | -0.635256 |
| C | -1.676169 | 5.730813  | 0.700677  | H | -6.750710 | -5.617814 | -2.313087 |
| O | -1.117935 | 6.586091  | 1.375067  | C | -6.262670 | -0.317859 | -1.423559 |
| N | -3.035068 | 5.644445  | 0.585828  | O | -5.069452 | -0.498739 | -1.682532 |
| H | -3.593072 | 6.338077  | 1.063913  | N | -6.853192 | 0.900718  | -1.459206 |
| H | -3.487998 | 4.916409  | 0.043578  | H | -7.820113 | 1.002986  | -1.159569 |
| C | 1.563477  | 1.865510  | 1.154753  | C | -6.075251 | 2.107367  | -1.717861 |
| O | 2.768785  | 2.109039  | 1.144461  | H | -5.408601 | 1.906597  | -2.560643 |
| N | 1.007597  | 0.951752  | 1.994350  | C | -6.999081 | 3.282540  | -2.057870 |
| H | 0.011662  | 0.765260  | 1.953862  | H | -7.715110 | 3.469476  | -1.250529 |
| C | 1.852763  | 0.126670  | 2.848461  | H | -6.398542 | 4.182465  | -2.213239 |
| H | 2.521287  | 0.779682  | 3.416217  | H | -7.557801 | 3.073851  | -2.975801 |
| C | 0.992536  | -0.707472 | 3.803469  | C | -5.124877 | 2.481994  | -0.560186 |
| H | 0.393027  | -0.052679 | 4.445018  | O | -4.128795 | 3.169047  | -0.800926 |
| H | 0.320198  | -1.367969 | 3.245527  | N | -5.469485 | 2.058922  | 0.680614  |
| H | 1.634405  | -1.322800 | 4.440751  | H | -6.253086 | 1.420371  | 0.774760  |
| C | 2.803624  | -0.773096 | 2.030963  | C | -4.559183 | 2.162942  | 1.820172  |
| O | 3.985133  | -0.902597 | 2.381030  | H | -3.992971 | 3.089481  | 1.713054  |
| N | 2.286138  | -1.399120 | 0.954644  | C | -5.341346 | 2.173303  | 3.139054  |
| H | 1.298067  | -1.293541 | 0.737012  | H | -4.647241 | 2.221960  | 3.983434  |
| C | 3.107480  | -2.271805 | 0.110829  | H | -5.996887 | 3.048979  | 3.179113  |
| H | 3.606422  | -3.020768 | 0.734590  | H | -5.954639 | 1.271881  | 3.241298  |
| C | 2.230062  | -2.969367 | -0.934618 | C | -3.502013 | 1.038197  | 1.802409  |
| H | 1.455112  | -3.566360 | -0.442719 | O | -2.312422 | 1.285630  | 2.028674  |
| H | 1.748629  | -2.239340 | -1.595009 | N | -3.940980 | -0.211669 | 1.519041  |
| H | 2.850347  | -3.636942 | -1.538987 | H | -4.933848 | -0.388838 | 1.388375  |
| C | 4.244420  | -1.498712 | -0.579807 | C | -3.010777 | -1.336000 | 1.460040  |
| O | 5.339614  | -2.032620 | -0.788839 | H | -2.507110 | -1.442466 | 2.426257  |
| N | 3.990204  | -0.220694 | -0.948546 | C | -3.759161 | -2.629267 | 1.119192  |
| H | 3.050966  | 0.158943  | -0.867282 | H | -3.058102 | -3.468567 | 1.120861  |
| C | 5.009656  | 0.575100  | -1.619134 | H | -4.541884 | -2.830223 | 1.858367  |
| H | 5.336913  | 0.062287  | -2.530391 | H | -4.218235 | -2.560668 | 0.127281  |
| C | 4.455166  | 1.961427  | -1.969762 | C | -1.870571 | -1.093947 | 0.452144  |
| H | 5.232561  | 2.553233  | -2.460934 | O | -0.729572 | -1.486429 | 0.709503  |
| H | 3.602943  | 1.863124  | -2.650004 | N | -2.194532 | -0.463474 | -0.700725 |
| H | 4.120628  | 2.481923  | -1.066881 | H | -3.172785 | -0.290423 | -0.923039 |
| C | 6.289521  | 0.706392  | -0.777436 | C | -1.187835 | -0.206553 | -1.727271 |

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|   |            |           |           |  |            |           |           |
|---|------------|-----------|-----------|--|------------|-----------|-----------|
| O | -27.263205 | -0.295738 | -1.731083 | O  | 7.382359   | 0.853659  | -1.346226 |
| C | -28.368592 | -0.688531 | 0.373580  | N  | 6.157434   | 0.679968  | 0.563468  |
| H | -28.797696 | -1.644859 | 0.058623  | H  | 5.242474   | 0.509904  | 0.971400  |
| H | -28.129486 | -0.737581 | 1.440381  | C  | 7.309279   | 0.771565  | 1.450609  |
| H | -29.132937 | 0.078846  | 0.215402  | H  | 7.945521   | 1.591007  | 1.100795  |
| N | -25.992160 | -0.184623 | 0.149438  | C  | 6.854273   | 1.071613  | 2.883615  |
| C | -24.741714 | 0.047937  | -0.547126 | H  | 7.725567   | 1.080079  | 3.543118  |
| C | -23.614570 | -0.332634 | 0.427958  | H  | 6.367877   | 2.051341  | 2.927058  |
| O | -23.829163 | -0.492414 | 1.631695  | H  | 6.138310   | 0.322036  | 3.236391  |
| C | -24.606412 | 1.507039  | -1.024742 | C  | 8.243328   | -0.458538 | 1.415259  |
| H | -25.899082 | -0.335420 | 1.147663  | O  | 9.372662   | -0.352240 | 1.901077  |
| H | -24.706439 | -0.608500 | -1.425728 | N  | 7.785842   | -1.607778 | 0.854935  |
| H | -25.444843 | 1.739308  | -1.685987 | H  | 6.865951   | -1.640211 | 0.415355  |
| H | -24.623129 | 2.192955  | -0.171138 | C  | 8.693264   | -2.730275 | 0.631766  |
| H | -23.673343 | 1.661921  | -1.577723 | H  | 9.401592   | -2.735861 | 1.465839  |
| N | -22.387707 | -0.459610 | -0.125450 | C  | 7.972147   | -4.089062 | 0.573652  |
| C | -21.187939 | -0.685441 | 0.661355  | H  | 8.722740   | -4.804686 | 0.225885  |
| C | -20.005103 | -0.236223 | -0.215734 | H  | 7.171122   | -4.063108 | -0.174686 |
| O | -20.144475 | -0.030122 | -1.422676 | C  | 7.396658   | -4.590531 | 1.919072  |
| C | -21.047186 | -2.157493 | 1.093165  | H  | 8.100311   | -4.380181 | 2.734587  |
| H | -22.215072 | -0.260643 | -1.106407 | H  | 7.276410   | -5.676811 | 1.858082  |
| H | -21.237526 | -0.059711 | 1.561110  | C  | 6.008951   | -4.029369 | 2.215992  |
| H | -21.926903 | -2.442685 | 1.675322  | O  | 5.012346   | -4.476155 | 1.652863  |
| H | -20.973158 | -2.808580 | 0.215808  | N  | 5.941692   | -3.025137 | 3.141992  |
| H | -20.156510 | -2.305726 | 1.713591  | H  | 5.113367   | -2.434882 | 3.095777  |
| N | -18.822249 | -0.111181 | 0.424818  | H  | 6.797811   | -2.539097 | 3.372063  |
| C | -17.585193 | 0.224492  | -0.261444 | C  | 9.599289   | -2.564504 | -0.616329 |
| C | -16.451467 | -0.340758 | 0.611947  | O  | 10.530326  | -3.346198 | -0.784178 |
| O | -16.619802 | -0.545185 | 1.814703  | N  | 9.295931   | -1.542079 | -1.459013 |
| C | -17.458145 | 1.755611  | -0.468211 | H  | 8.474562   | -0.975556 | -1.278981 |
| C | -16.320493 | 2.173239  | -1.403381 | C  | 10.127396  | -1.198524 | -2.603253 |
| C | -16.339601 | 3.674507  | -1.696589 | H  | 10.858396  | -2.002037 | -2.706790 |
| N | -15.133296 | 4.180798  | -2.099069 | C  | 9.284328   | -1.083296 | -3.883530 |
| O | -17.339097 | 4.368585  | -1.585897 | H  | 8.804235   | -2.041820 | -4.105621 |
| H | -18.717639 | -0.317952 | 1.412772  | H  | 8.503189   | -0.323293 | -3.765512 |
| H | -17.593907 | -0.266097 | -1.242065 | H  | 9.922329   | -0.801820 | -4.727049 |
| H | -17.347015 | 2.239810  | 0.509290  | C  | 10.958781  | 0.089499  | -2.414346 |
| H | -18.401395 | 2.108147  | -0.893016 | O  | 12.044268  | 0.201681  | -2.974377 |
| H | -16.425487 | 1.654404  | -2.368954 | N  | 10.400861  | 1.074151  | -1.643263 |
| H | -15.336553 | 1.897457  | -1.009936 | H  | 9.414800   | 1.003652  | -1.403627 |
| H | -15.103086 | 5.137881  | -2.421357 | C  | 11.005810  | 2.399179  | -1.568692 |
| H | -14.336927 | 3.586027  | -2.275307 | H  | 12.032975  | 2.270714  | -1.925431 |
| N | -15.277259 | -0.577822 | -0.021705 | C  | 10.288879  | 3.410529  | -2.474770 |
| C | -14.047717 | -0.866515 | 0.698618  | H  | 10.373680  | 3.100168  | -3.520933 |
| C | -12.911951 | -0.139943 | -0.051326 | H  | 9.224803   | 3.474782  | -2.217363 |
| O | -13.114443 | 0.429105  | -1.129570 | H  | 10.735514  | 4.399414  | -2.349780 |
| C | -13.799746 | -2.380734 | 0.823251  | C  | 11.112436  | 2.951355  | -0.134250 |
| H | -15.135494 | -0.265588 | -0.976507 | O  | 11.442511  | 4.117979  | 0.056875  |
| H | -14.143974 | -0.442674 | 1.704929  | N  | 10.831098  | 2.090835  | 0.877941  |
| H | -14.646244 | -2.838686 | 1.342218  | H  | 10.605727  | 1.112169  | 0.754731  |
| H | -13.703507 | -2.840886 | -0.165804 | H  | 10.954053  | 2.427144  | 1.822379  |
| H | -12.890405 | -2.595676 | 1.394742  | Ac-(Ala-Ala-Gln-Ala-Ala) <sub>3</sub> -NH <sub>2</sub> | C5         |           |           |
| N | -11.705244 | -0.176480 | 0.547590  | C  | -27.167726 | -0.375708 | -0.508913 |

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|   |           |           |           |   |            |           |           |
|---|-----------|-----------|-----------|---|------------|-----------|-----------|
| H | 3.212071  | 2.933912  | 0.854075  | C | -10.498948 | 0.364496  | -0.057124 |
| H | 4.133459  | 2.088241  | 2.118698  | C | -9.320058  | -0.351498 | 0.631643  |
| H | 4.969365  | 2.748601  | 0.696798  | O | -9.493225  | -1.024265 | 1.650696  |
| N | 6.142737  | 0.256988  | 0.019905  | C | -10.409201 | 1.893529  | 0.100172  |
| C | 7.347902  | -0.534491 | 0.208468  | H | -11.535826 | -0.714245 | 1.393365  |
| C | 8.527811  | 0.417216  | -0.071398 | H | -10.504780 | 0.118384  | -1.125800 |
| O | 8.346677  | 1.509254  | -0.615107 | H | -11.286616 | 2.353555  | -0.361487 |
| C | 7.382057  | -1.765526 | -0.716047 | H | -10.379845 | 2.169754  | 1.159270  |
| H | 6.304080  | 1.149539  | -0.439411 | H | -9.512670  | 2.290625  | -0.387754 |
| H | 7.384852  | -0.872642 | 1.251045  | N | -8.116866  | -0.173882 | 0.050495  |
| H | 6.505903  | -2.387616 | -0.517209 | C | -6.875911  | -0.672678 | 0.620882  |
| H | 7.367939  | -1.456428 | -1.766276 | C | -5.751537  | 0.177713  | -0.002367 |
| H | 8.281372  | -2.365591 | -0.541762 | O | -5.973453  | 0.922467  | -0.960486 |
| N | 9.740211  | -0.040211 | 0.299054  | C | -6.677285  | -2.175262 | 0.349063  |
| C | 10.980308 | 0.659410  | 0.003379  | H | -7.985300  | 0.445068  | -0.745146 |
| C | 12.095642 | -0.400061 | 0.097542  | H | -6.900067  | -0.510271 | 1.705353  |
| O | 11.882353 | -1.504870 | 0.603146  | H | -7.518373  | -2.729741 | 0.772856  |
| C | 11.227329 | 1.834414  | 0.967392  | H | -6.629300  | -2.367565 | -0.727783 |
| H | 9.874334  | -0.969229 | 0.689424  | H | -5.753783  | -2.543268 | 0.808533  |
| H | 10.926403 | 1.047873  | -1.020919 | N | -4.536025  | 0.035950  | 0.563439  |
| H | 10.394498 | 2.538480  | 0.895674  | C | -3.336418  | 0.662959  | 0.032608  |
| H | 11.302888 | 1.474768  | 1.998803  | C | -2.152339  | -0.157835 | 0.579330  |
| H | 12.151758 | 2.365275  | 0.716170  | O | -2.311939  | -0.981913 | 1.482309  |
| N | 13.295006 | -0.023777 | -0.389850 | C | -3.237576  | 2.147800  | 0.427565  |
| C | 14.492114 | -0.840320 | -0.270502 | H | -4.356246  | -0.641513 | 1.299751  |
| C | 15.680965 | 0.123486  | -0.444572 | H | -3.359299  | 0.589474  | -1.061557 |
| O | 15.517589 | 1.262968  | -0.885720 | H | -4.114958  | 2.678004  | 0.048719  |
| C | 14.523354 | -1.978763 | -1.307069 | H | -3.199758  | 2.252947  | 1.516802  |
| H | 13.465985 | 0.912737  | -0.746079 | H | -2.341543  | 2.612112  | 0.001992  |
| H | 14.517115 | -1.278145 | 0.734845  | N | -0.954777  | 0.104328  | 0.016208  |
| H | 13.642908 | -2.611421 | -1.170110 | C | 0.279359   | -0.533023 | 0.447830  |
| H | 14.516458 | -1.571876 | -2.323609 | C | 1.411141   | 0.429336  | 0.044638  |
| H | 15.418422 | -2.598202 | -1.185856 | O | 1.247283   | 1.257147  | -0.852551 |
| N | 16.888049 | -0.373615 | -0.102932 | C | 0.439910   | -1.932150 | -0.200085 |
| C | 18.123405 | 0.378736  | -0.255734 | C | 1.566045   | -2.779969 | 0.396568  |
| C | 19.246058 | -0.670809 | -0.333125 | C | 1.569045   | -4.203665 | -0.163972 |
| O | 19.087423 | -1.803306 | 0.124184  | N | 2.773845   | -4.843371 | -0.059060 |
| C | 18.321780 | 1.368135  | 0.920862  | O | 0.585222   | -4.731444 | -0.660775 |
| C | 19.436780 | 2.394807  | 0.707408  | H | -0.835646  | 0.813616  | -0.700194 |
| C | 19.447610 | 3.458303  | 1.808479  | H | 0.243704   | -0.647246 | 1.537725  |
| N | 20.636408 | 4.125476  | 1.934911  | H | 0.584223   | -1.810216 | -1.280204 |
| O | 18.483343 | 3.696007  | 2.519679  | H | -0.502853  | -2.467813 | -0.063581 |
| H | 17.008899 | -1.324322 | 0.231794  | H | 1.430404   | -2.862469 | 1.486214  |
| H | 18.065704 | 0.946836  | -1.191983 | H | 2.552248   | -2.330500 | 0.240518  |
| H | 18.496798 | 0.798956  | 1.841470  | H | 2.815898   | -5.822628 | -0.304217 |
| H | 17.381629 | 1.908601  | 1.055069  | H | 3.555695   | -4.433246 | 0.430317  |
| H | 19.280360 | 2.919332  | -0.248099 | N | 2.575874   | 0.290278  | 0.721824  |
| H | 20.426760 | 1.929567  | 0.647411  | C | 3.808758   | 0.933407  | 0.295847  |
| H | 20.665011 | 4.924897  | 2.552493  | C | 4.943252   | -0.086020 | 0.527754  |
| H | 21.386012 | 4.007293  | 1.269218  | O | 4.744669   | -1.137657 | 1.146300  |
| N | 20.400270 | -0.263006 | -0.912239 | C | 4.051948   | 2.258832  | 1.040048  |
| C | 21.619830 | -1.052142 | -0.856729 | H | 2.714166   | -0.491607 | 1.353600  |
| C | 22.788123 | -0.053122 | -0.745872 | H | 3.721871   | 1.142140  | -0.776483 |

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|   |            |           |           |  |            |           |           |
|---|------------|-----------|-----------|--|------------|-----------|-----------|
| C | -13.887363 | -4.211640 | -2.342674 | O  | 22.611654  | 1.162591  | -0.873302 |
| N | -12.925952 | -4.910562 | -3.017999 | C  | 21.757442  | -1.982906 | -2.075527 |
| O | -15.079278 | -4.461073 | -2.458500 | H  | 20.540967  | 0.709284  | -1.165319 |
| H | -15.803912 | 0.048415  | -0.797004 | H  | 21.581080  | -1.666012 | 0.050755  |
| H | -13.979318 | -1.551517 | 0.783797  | H  | 20.891565  | -2.649252 | -2.113363 |
| H | -14.265083 | -1.385866 | -2.263899 | H  | 21.796819  | -1.403076 | -3.003593 |
| H | -15.333514 | -2.327230 | -1.219023 | H  | 22.661206  | -2.598354 | -2.012210 |
| H | -13.282356 | -3.611414 | -0.396397 | N  | 23.999060  | -0.600265 | -0.511683 |
| H | -12.353571 | -2.813051 | -1.668093 | C  | 25.225375  | 0.177446  | -0.475406 |
| H | -13.230122 | -5.596030 | -3.695810 | C  | 26.371315  | -0.822485 | -0.714919 |
| H | -11.964430 | -4.607196 | -3.045776 | O  | 26.186546  | -2.032829 | -0.655425 |
| N | -12.288595 | 0.441340  | 0.777198  | C  | 25.396847  | 0.926930  | 0.859560  |
| C | -11.154753 | 1.372327  | 0.768312  | H  | 24.140386  | -1.605594 | -0.469937 |
| C | -9.815050  | 0.625199  | 0.976256  | H  | 25.197043  | 0.910077  | -1.291700 |
| O | -9.104215  | 0.811738  | 1.969274  | H  | 24.539398  | 1.587307  | 1.009778  |
| C | -11.354347 | 2.452839  | 1.826530  | H  | 25.452027  | 0.219160  | 1.692708  |
| H | -12.939225 | 0.464860  | 1.565749  | H  | 26.307584  | 1.535626  | 0.860829  |
| H | -11.118371 | 1.822265  | -0.232317 | N  | 27.586310  | -0.271391 | -0.964373 |
| H | -12.294682 | 2.983943  | 1.649642  | H  | 27.725608  | 0.722880  | -1.061337 |
| H | -11.370778 | 2.017775  | 2.829934  | H  | 28.372704  | -0.887930 | -1.115193 |
| H | -10.531054 | 3.170452  | 1.794209  | <u>Ac-(Ala-Ala-Gln-Ala-Ala)<sub>3</sub>-NH<sub>2</sub> C7<sub>eq</sub></u> |            |           |           |
| N | -9.485306  | -0.225371 | -0.024154 | C  | -21.169531 | 0.285100  | 1.190967  |
| C | -8.353805  | -1.151777 | 0.069746  | O  | -20.503744 | -0.038143 | 2.178294  |
| C | -7.029342  | -0.454711 | -0.323660 | C  | -22.467414 | 1.059163  | 1.325886  |
| O | -6.398117  | -0.772344 | -1.338069 | H  | -22.278992 | 1.970284  | 1.901058  |
| C | -8.607506  | -2.382429 | -0.795538 | H  | -22.922765 | 1.326294  | 0.367625  |
| H | -10.155731 | -0.331397 | -0.787773 | H  | -23.177352 | 0.453699  | 1.898389  |
| H | -8.266122  | -1.441419 | 1.124547  | N  | -20.789238 | -0.040435 | -0.074654 |
| H | -9.535823  | -2.873123 | -0.485785 | C  | -19.627476 | -0.888816 | -0.364117 |
| H | -8.676842  | -2.106618 | -1.851972 | C  | -18.317653 | -0.065445 | -0.323181 |
| H | -7.782904  | -3.092783 | -0.696627 | O  | -17.666657 | 0.179649  | -1.344559 |
| N | -6.624227  | 0.506580  | 0.538030  | C  | -19.801704 | -1.587199 | -1.708674 |
| C | -5.507010  | 1.412660  | 0.247838  | H  | -21.336922 | 0.286026  | -0.858810 |
| C | -4.151621  | 0.752915  | 0.596978  | H  | -19.579117 | -1.626976 | 0.444549  |
| O | -3.428812  | 1.174458  | 1.506454  | H  | -20.726432 | -2.172780 | -1.713244 |
| C | -5.690226  | 2.729844  | 0.995020  | H  | -19.824053 | -0.860752 | -2.527037 |
| H | -7.248728  | 0.726774  | 1.316273  | H  | -18.961322 | -2.259668 | -1.897759 |
| H | -5.509835  | 1.587220  | -0.835724 | N  | -17.949387 | 0.343452  | 0.913036  |
| H | -6.647066  | 3.185840  | 0.722623  | C  | -16.835763 | 1.271689  | 1.140308  |
| H | -5.662247  | 2.571217  | 2.076894  | C  | -15.486322 | 0.513624  | 1.158114  |
| H | -4.884400  | 3.423736  | 0.743656  | O  | -14.792009 | 0.430403  | 2.176832  |
| N | -3.821445  | -0.301397 | -0.186056 | C  | -17.053580 | 2.047349  | 2.435438  |
| C | -2.674660  | -1.168612 | 0.099781  | H  | -18.597846 | 0.151490  | 1.678522  |
| C | -1.366203  | -0.556942 | -0.456029 | H  | -16.810888 | 1.957720  | 0.283914  |
| O | -0.725333  | -1.092864 | -1.367491 | H  | -18.005541 | 2.585735  | 2.397136  |
| C | -2.916238  | -2.564610 | -0.465594 | H  | -17.056327 | 1.373729  | 3.297121  |
| H | -4.513313  | -0.604686 | -0.874517 | H  | -16.245819 | 2.767842  | 2.585658  |
| H | -2.570832  | -1.212717 | 1.191678  | N  | -15.134266 | -0.033574 | -0.029303 |
| H | -3.836228  | -2.985261 | -0.048062 | C  | -14.029541 | -0.990073 | -0.158989 |
| H | -2.997232  | -2.534761 | -1.555940 | C  | -12.681366 | -0.246080 | -0.319157 |
| H | -2.081152  | -3.224226 | -0.217050 | O  | -12.019675 | -0.293201 | -1.364411 |
| N | -0.983031  | 0.592180  | 0.147967  | C  | -14.313969 | -1.943464 | -1.321893 |
| C | 0.098205   | 1.435930  | -0.372400 | C  | -13.359427 | -3.139181 | -1.386935 |

|                             |           |           |           |   |           |           |           |
|-----------------------------|-----------|-----------|-----------|---|-----------|-----------|-----------|
| H                           | 11.184790 | 3.275379  | -0.909334 | C | 1.473397  | 0.919206  | 0.118486  |
| H                           | 12.055986 | 2.956482  | -2.407882 | O | 2.187197  | 1.567899  | 0.894753  |
| N                           | 13.130142 | -0.280367 | -0.335898 | C | -0.154811 | 2.892538  | 0.023219  |
| C                           | 14.232951 | -0.635687 | 0.562979  | C | 0.777358  | 3.890391  | -0.671462 |
| C                           | 15.583355 | -0.613042 | -0.195484 | C | 0.288655  | 5.326579  | -0.474473 |
| O                           | 16.242891 | -1.639377 | -0.403481 | N | 1.276497  | 6.262839  | -0.336596 |
| C                           | 13.950853 | -1.993552 | 1.210056  | O | -0.897091 | 5.625778  | -0.489432 |
| C                           | 14.913129 | -2.338603 | 2.351183  | H | -1.615227 | 0.979030  | 0.852802  |
| C                           | 14.427322 | -3.560985 | 3.131295  | H | 0.086605  | 1.335654  | -1.466244 |
| N                           | 15.417626 | -4.380765 | 3.598772  | H | -0.051006 | 2.992240  | 1.109563  |
| O                           | 13.244380 | -3.767353 | 3.364498  | H | -1.186327 | 3.151993  | -0.233876 |
| H                           | 12.471534 | -1.007618 | -0.623287 | H | 0.781371  | 3.706113  | -1.755833 |
| H                           | 14.281082 | 0.145601  | 1.333413  | H | 1.804849  | 3.763741  | -0.317825 |
| H                           | 14.001554 | -2.774222 | 0.442800  | H | 0.995858  | 7.214651  | -0.143271 |
| H                           | 12.931988 | -1.989314 | 1.609161  | H | 2.233260  | 6.003390  | -0.149941 |
| H                           | 14.957778 | -1.504790 | 3.067066  | N | 1.827282  | -0.286734 | -0.380821 |
| H                           | 15.925519 | -2.487654 | 1.964422  | C | 2.978370  | -1.045781 | 0.119852  |
| H                           | 15.139821 | -5.231493 | 4.068799  | C | 4.288982  | -0.588964 | -0.564069 |
| H                           | 16.368236 | -4.308578 | 3.268966  | O | 4.946746  | -1.338695 | -1.293312 |
| N                           | 15.978658 | 0.616958  | -0.594122 | C | 2.745521  | -2.540741 | -0.074998 |
| C                           | 17.123076 | 0.833011  | -1.486470 | H | 1.136231  | -0.766094 | -0.963215 |
| C                           | 18.453284 | 0.874046  | -0.693912 | H | 3.075413  | -0.811937 | 1.187984  |
| O                           | 19.152357 | 1.891207  | -0.640300 | H | 1.827563  | -2.848044 | 0.435283  |
| C                           | 16.922368 | 2.110948  | -2.294856 | H | 2.665353  | -2.787162 | -1.137625 |
| H                           | 15.330590 | 1.389228  | -0.425675 | H | 3.584414  | -3.110789 | 0.331504  |
| H                           | 17.172754 | -0.035610 | -2.155521 | N | 4.657201  | 0.682656  | -0.280087 |
| H                           | 15.990606 | 2.053279  | -2.866137 | C | 5.763639  | 1.355909  | -0.966210 |
| H                           | 16.887929 | 2.985493  | -1.638653 | C | 7.123291  | 1.001022  | -0.316263 |
| H                           | 17.755147 | 2.254564  | -2.987534 | O | 7.814844  | 1.848180  | 0.260312  |
| N                           | 18.779407 | -0.291749 | -0.090297 | C | 5.536263  | 2.864258  | -0.977677 |
| C                           | 19.917274 | -0.428227 | 0.825719  | H | 4.026037  | 1.230685  | 0.307427  |
| C                           | 21.231492 | -0.666663 | 0.035416  | H | 5.785538  | 0.967279  | -1.992334 |
| O                           | 21.816429 | -1.741475 | 0.041356  | H | 4.584032  | 3.096772  | -1.465201 |
| C                           | 19.661663 | -1.560492 | 1.813970  | H | 5.529885  | 3.263052  | 0.041105  |
| H                           | 18.127159 | -1.069971 | -0.192316 | H | 6.342283  | 3.365186  | -1.519458 |
| H                           | 20.014670 | 0.527874  | 1.353810  | N | 7.487271  | -0.295020 | -0.448878 |
| H                           | 18.733897 | -1.380754 | 2.367558  | C | 8.631763  | -0.874070 | 0.263107  |
| H                           | 19.596694 | -2.519608 | 1.291450  | C | 9.955222  | -0.605484 | -0.491912 |
| H                           | 20.489081 | -1.633491 | 2.524458  | O | 10.630981 | -1.518479 | -0.978875 |
| N                           | 21.666861 | 0.435779  | -0.633544 | C | 8.414305  | -2.368117 | 0.482217  |
| H                           | 21.047859 | 1.237877  | -0.731322 | H | 6.822345  | -0.921385 | -0.906868 |
| H                           | 22.443583 | 0.320148  | -1.270190 | H | 8.702360  | -0.355920 | 1.228085  |
| <hr/>                       |           |           |           |   |           |           |           |
| antiparallel Gly tripeptide |           |           |           |   |           |           |           |
| C                           | -6.207572 | 1.115760  | 0.000000  | H | 8.362275  | -2.898792 | -0.472863 |
| N                           | -5.410257 | -0.098667 | 0.000000  | H | 9.246156  | -2.792912 | 1.049157  |
| C                           | -4.053948 | -0.099734 | 0.000000  | N | 10.317275 | 0.697756  | -0.550492 |
| O                           | -3.362346 | 0.925585  | 0.000000  | C | 11.448346 | 1.167206  | -1.356506 |
| C                           | -3.442924 | -1.493176 | 0.000000  | C | 12.782695 | 1.003025  | -0.589133 |
| N                           | -2.005189 | -1.400888 | 0.000000  | O | 13.470514 | 1.973119  | -0.251633 |
| C                           | -1.280164 | -2.536815 | 0.000000  | C | 11.228410 | 2.615733  | -1.780915 |
| O                           | -1.794790 | -3.667364 | 0.000000  | H | 9.671542  | 1.381530  | -0.151073 |
| C                           | 0.229940  | -2.350071 | 0.000000  | H | 11.502184 | 0.516177  | -2.238509 |
| N                           | 0.837886  | -3.659589 | 0.000000  | H | 10.295296 | 2.704636  | -2.345834 |

|                               |           |           |           |                         |           |           |           |
|-------------------------------|-----------|-----------|-----------|-------------------------|-----------|-----------|-----------|
| C                             | 4.416301  | 1.156350  | 0.000000  | C                       | 2.174252  | -3.821084 | 0.000000  |
| O                             | 3.640946  | 2.126778  | 0.000000  | O                       | 2.953713  | -2.850545 | 0.000000  |
| C                             | 5.917251  | 1.333082  | 0.000000  | C                       | 2.682247  | -5.244125 | 0.000000  |
| H                             | -2.812818 | -6.176306 | 0.891836  | H                       | -6.837890 | 1.164653  | 0.891696  |
| H                             | -2.812818 | -6.176306 | -0.891836 | H                       | -6.837890 | 1.164653  | -0.891696 |
| H                             | -3.238873 | -4.699086 | 0.000000  | H                       | -5.520898 | 1.959813  | 0.000000  |
| H                             | -0.486543 | -5.823786 | 0.000000  | H                       | -5.889313 | -0.990371 | 0.000000  |
| H                             | 1.080977  | -4.091065 | -0.877426 | H                       | -3.792057 | -2.051928 | 0.878566  |
| H                             | 1.080977  | -4.091065 | 0.877426  | H                       | -3.792057 | -2.051928 | -0.878566 |
| H                             | 0.224889  | -1.496842 | 0.000000  | H                       | -1.564261 | -0.478806 | 0.000000  |
| H                             | 2.061000  | 0.122378  | -0.868716 | H                       | 0.535974  | -1.768961 | 0.875324  |
| H                             | 2.061000  | 0.122378  | 0.868716  | H                       | 0.535974  | -1.768961 | -0.875324 |
| H                             | 4.554303  | -0.931537 | 0.000000  | H                       | 0.185731  | -4.438956 | 0.000000  |
| H                             | 6.202846  | 1.911010  | 0.881826  | H                       | 3.309257  | -5.393105 | 0.882075  |
| H                             | 6.202846  | 1.911010  | -0.881826 | H                       | 3.309257  | -5.393105 | -0.882075 |
| H                             | 6.458029  | 0.383965  | 0.000000  | H                       | 1.878979  | -5.983847 | 0.000000  |
| N                             | -4.395747 | -1.481511 | 0.000000  | N                       | 4.946087  | -0.692986 | 0.000000  |
| C                             | -5.786350 | -1.891987 | 0.000000  | C                       | 6.396899  | -0.712227 | 0.000000  |
| C                             | -4.026860 | -0.178040 | 0.000000  | C                       | 4.246887  | 0.461271  | 0.000000  |
| O                             | -4.807206 | 0.782059  | 0.000000  | O                       | 4.743679  | 1.597608  | 0.000000  |
| C                             | -2.518908 | 0.014381  | 0.000000  | C                       | 2.733927  | 0.266544  | 0.000000  |
| N                             | -2.216905 | 1.422061  | 0.000000  | N                       | 2.113808  | 1.569386  | 0.000000  |
| C                             | -0.928261 | 1.815799  | 0.000000  | C                       | 0.778789  | 1.716833  | 0.000000  |
| O                             | 0.000000  | 0.987662  | 0.000000  | O                       | 0.000000  | 0.744734  | 0.000000  |
| C                             | -0.696449 | 3.313070  | 0.000000  | C                       | 0.288745  | 3.153611  | 0.000000  |
| N                             | 0.711624  | 3.624335  | 0.000000  | N                       | -1.151176 | 3.187368  | 0.000000  |
| C                             | 1.069190  | 4.939393  | 0.000000  | C                       | -1.776906 | 4.394656  | 0.000000  |
| O                             | 0.213030  | 5.833793  | 0.000000  | O                       | -1.141920 | 5.456183  | 0.000000  |
| C                             | 2.550823  | 5.238198  | 0.000000  | C                       | -3.289224 | 4.353883  | 0.000000  |
| H                             | -3.653299 | -2.176204 | 0.000000  | H                       | 4.426144  | -1.569332 | 0.000000  |
| H                             | -6.021350 | -2.481025 | -0.891381 | H                       | 6.778146  | -1.220204 | 0.890349  |
| H                             | -6.392437 | -0.986388 | 0.000000  | H                       | 6.740067  | 0.321697  | 0.000000  |
| H                             | -6.021350 | -2.481025 | 0.891381  | H                       | 6.778146  | -1.220204 | -0.890349 |
| H                             | -2.080607 | -0.476919 | -0.875330 | H                       | 2.432085  | -0.315488 | 0.876284  |
| H                             | -2.080607 | -0.476919 | 0.875330  | H                       | 2.432085  | -0.315488 | -0.876284 |
| H                             | -3.008744 | 2.059275  | 0.000000  | H                       | 2.760600  | 2.355813  | 0.000000  |
| H                             | -1.187476 | 3.760142  | -0.874897 | H                       | 0.687693  | 3.681354  | 0.876454  |
| H                             | -1.187476 | 3.760142  | 0.874897  | H                       | 0.687693  | 3.681354  | -0.876454 |
| H                             | 1.396495  | 2.871144  | 0.000000  | H                       | -1.657660 | 2.305529  | 0.000000  |
| H                             | 2.776441  | 5.845826  | 0.880134  | H                       | -3.651441 | 4.889029  | -0.881402 |
| H                             | 2.776441  | 5.845826  | -0.880134 | H                       | -3.651441 | 4.889029  | 0.881402  |
| H                             | 3.169236  | 4.340802  | 0.000000  | H                       | -3.673418 | 3.333814  | 0.000000  |
| <hr/>                         |           |           |           | <hr/>                   |           |           |           |
| antiparallel Gly pentapeptide |           |           |           | parallel Gly tripeptide |           |           |           |
| N                             | 8.320866  | 1.425969  | 0.000000  | C                       | -2.601376 | -5.581173 | 0.000000  |
| C                             | 9.762237  | 1.260197  | 0.000000  | N                       | -1.221508 | -5.127277 | 0.000000  |
| C                             | 7.480240  | 0.370792  | 0.000000  | C                       | -0.863864 | -3.820750 | 0.000000  |
| O                             | 7.825034  | -0.820781 | 0.000000  | O                       | -1.674546 | -2.883198 | 0.000000  |
| C                             | 6.006032  | 0.759069  | 0.000000  | C                       | 0.640062  | -3.599163 | 0.000000  |
| N                             | 5.220426  | -0.453274 | 0.000000  | N                       | 0.965641  | -2.195204 | 0.000000  |
| C                             | 3.879977  | -0.405690 | 0.000000  | C                       | 2.273502  | -1.836770 | 0.000000  |
| O                             | 3.251788  | 0.669045  | 0.000000  | O                       | 3.188286  | -2.673619 | 0.000000  |
| C                             | 3.163221  | -1.748478 | 0.000000  | C                       | 2.533072  | -0.345683 | 0.000000  |
| N                             | 1.740199  | -1.510326 | 0.000000  | N                       | 3.954902  | -0.113470 | 0.000000  |

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|                           |            |           |           |   |           |           |           |
|---------------------------|------------|-----------|-----------|---|-----------|-----------|-----------|
| H                         | 7.332865   | 6.286599  | -0.882133 | C | 0.871916  | -2.539763 | 0.000000  |
| H                         | 4.101425   | 5.795419  | 0.000000  | O | 1.216622  | -3.731440 | 0.000000  |
| H                         | 4.071056   | 3.103294  | 0.875409  | C | -0.596635 | -2.132795 | 0.000000  |
| H                         | 4.071056   | 3.103294  | -0.875409 | N | -1.395229 | -3.334935 | 0.000000  |
| H                         | 1.843746   | 2.112349  | 0.000000  | C | -2.738730 | -3.291629 | 0.000000  |
| H                         | -0.207266  | 3.899180  | 0.879304  | O | -3.372075 | -2.219284 | 0.000000  |
| H                         | -0.207266  | 3.899180  | -0.879304 | C | -3.424549 | -4.645706 | 0.000000  |
| H                         | -2.497840  | 2.890025  | 0.000000  | N | -4.855324 | -4.480809 | 0.000000  |
| H                         | -2.534276  | 0.192570  | 0.875372  | C | -5.639632 | -5.592095 | 0.000000  |
| H                         | -2.534276  | 0.192570  | -0.875372 | O | -5.153888 | -6.729555 | 0.000000  |
| H                         | -4.787694  | -0.791821 | 0.000000  | C | -7.132372 | -5.347193 | 0.000000  |
| H                         | -6.781372  | 1.067123  | -0.878840 | H | 7.916767  | 2.361916  | 0.000000  |
| H                         | -6.781372  | 1.067123  | 0.878840  | H | 10.204612 | 1.715528  | 0.890392  |
| H                         | -9.002333  | 0.290948  | 0.000000  | H | 10.204612 | 1.715528  | -0.890392 |
| H                         | -10.226471 | -1.720013 | -0.891716 | H | 9.971630  | 0.191017  | 0.000000  |
| H                         | -10.226471 | -1.720013 | 0.891716  | H | 5.779366  | 1.374696  | 0.875817  |
| H                         | -9.026132  | -2.682233 | 0.000000  | H | 5.779366  | 1.374696  | -0.875817 |
| parallel Gly pentapeptide |            |           |           | H | 5.756553  | -1.319056 | 0.000000  |
| N                         | -8.313542  | -1.706309 | 0.000000  | H | 3.461176  | -2.333770 | 0.879437  |
| C                         | -6.959908  | -1.715946 | 0.000000  | H | 3.461176  | -2.333770 | -0.879437 |
| O                         | -6.275204  | -2.749726 | 0.000000  | H | 1.418036  | -0.541883 | 0.000000  |
| C                         | -6.339538  | -0.327406 | 0.000000  | H | -0.812366 | -1.513514 | 0.876171  |
| N                         | -4.899038  | -0.396032 | 0.000000  | H | -0.812366 | -1.513514 | -0.876171 |
| C                         | -4.197730  | 0.763293  | 0.000000  | H | -0.869442 | -4.206677 | 0.000000  |
| O                         | -4.747238  | 1.874078  | 0.000000  | H | -3.102451 | -5.223758 | -0.876369 |
| C                         | -2.690464  | 0.607316  | 0.000000  | H | -3.102451 | -5.223758 | 0.876369  |
| N                         | -2.084781  | 1.916824  | 0.000000  | H | -5.237290 | -3.538476 | 0.000000  |
| C                         | -0.743273  | 2.025517  | 0.000000  | H | -7.563475 | -5.828589 | 0.881301  |
| O                         | 0.000000   | 1.028658  | 0.000000  | H | -7.563475 | -5.828589 | -0.881301 |
| C                         | -0.195587  | 3.442534  | 0.000000  | H | -7.375677 | -4.284707 | 0.000000  |
| N                         | 1.246370   | 3.410503  | 0.000000  | O | 6.610842  | 3.822209  | 0.000000  |
| C                         | 1.939851   | 4.571558  | 0.000000  | C | 5.981006  | 4.896697  | 0.000000  |
| O                         | 1.389483   | 5.683071  | 0.000000  | C | 6.690918  | 6.230328  | 0.000000  |
| C                         | 3.446526   | 4.410205  | 0.000000  | N | 4.635476  | 4.930654  | 0.000000  |
| N                         | 4.058502   | 5.714438  | 0.000000  | C | 3.847951  | 3.721163  | 0.000000  |
| C                         | 5.404568   | 5.814192  | 0.000000  | C | 2.376284  | 4.114567  | 0.000000  |
| O                         | 6.129218   | 4.804771  | 0.000000  | O | 2.019884  | 5.303490  | 0.000000  |
| C                         | -9.125711  | -2.911097 | 0.000000  | N | 1.514998  | 3.079162  | 0.000000  |
| C                         | 5.982292   | 7.210912  | 0.000000  | C | 0.091412  | 3.313911  | 0.000000  |
| H                         | -8.785126  | -0.810110 | 0.000000  | C | -0.625466 | 1.971649  | 0.000000  |
| H                         | -6.692226  | 0.230325  | 0.877722  | O | 0.000000  | 0.896854  | 0.000000  |
| H                         | -6.692226  | 0.230325  | -0.877722 | N | -1.967305 | 2.021427  | 0.000000  |
| H                         | -4.431440  | -1.300428 | 0.000000  | C | -2.756334 | 0.810361  | 0.000000  |
| H                         | -2.369791  | 0.028997  | 0.871314  | C | -4.224215 | 1.207371  | 0.000000  |
| H                         | -2.369791  | 0.028997  | -0.871314 | O | -4.574130 | 2.398809  | 0.000000  |
| H                         | -2.716422  | 2.713066  | 0.000000  | N | -5.098132 | 0.181909  | 0.000000  |
| H                         | -0.569517  | 3.985019  | 0.878217  | C | -6.510427 | 0.467091  | 0.000000  |
| H                         | -0.569517  | 3.985019  | -0.878217 | C | -7.300532 | -0.833421 | 0.000000  |
| H                         | 1.722194   | 2.509407  | 0.000000  | O | -6.748896 | -1.940518 | 0.000000  |
| H                         | 3.766699   | 3.828476  | -0.869505 | N | -8.644769 | -0.656081 | 0.000000  |
| H                         | 3.766699   | 3.828476  | 0.869505  | C | -9.595333 | -1.754920 | 0.000000  |
| H                         | 3.431530   | 6.511992  | 0.000000  | H | 7.332865  | 6.286599  | 0.882133  |
| H                         | -9.755742  | -2.952002 | -0.891855 | H | 6.003741  | 7.078951  | 0.000000  |

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|   |           |           |           |       |           |           |           |  |
|---|-----------|-----------|-----------|-------|-----------|-----------|-----------|--|
| C | -0.666609 | 2.570699  | 2.144962  | H     | -9.755742 | -2.952002 | 0.891855  |  |
| N | 1.560715  | 2.317201  | -0.326356 | H     | -8.450688 | -3.764709 | 0.000000  |  |
| C | 2.685989  | 1.486275  | -0.731422 | H     | 6.616007  | 7.329034  | 0.881867  |  |
| C | 3.831905  | 1.805504  | 0.222592  | H     | 5.215350  | 7.988787  | 0.000000  |  |
| O | 4.090039  | 2.986572  | 0.502057  | H     | 6.616007  | 7.329034  | -0.881867 |  |
| C | 3.098320  | 1.781902  | -2.170684 | N     | -5.692660 | -5.779277 | 0.000000  |  |
| N | 4.508900  | 0.731402  | 0.684239  | C     | -4.339123 | -5.775618 | 0.000000  |  |
| C | 5.652178  | 0.873107  | 1.566144  | O     | -3.621201 | -6.783382 | 0.000000  |  |
| H | -4.213512 | 2.175225  | -0.940752 | C     | -3.748281 | -4.375250 | 0.000000  |  |
| H | -4.692103 | 3.895697  | -0.836849 | N     | -2.309804 | -4.466138 | 0.000000  |  |
| H | -3.865239 | 3.305896  | -2.277549 | C     | -1.588896 | -3.332517 | 0.000000  |  |
| H | -2.322236 | 1.643893  | 0.052373  | O     | -2.134941 | -2.213570 | 0.000000  |  |
| H | -0.352823 | 3.822264  | 0.402179  | C     | -0.078428 | -3.488928 | 0.000000  |  |
| H | 0.323632  | 2.721908  | 2.587179  | N     | 0.539574  | -2.184786 | 0.000000  |  |
| H | -1.369646 | 3.273886  | 2.597990  | C     | 1.887594  | -2.080750 | 0.000000  |  |
| H | -0.994755 | 1.549893  | 2.361510  | O     | 2.640554  | -3.065000 | 0.000000  |  |
| H | 1.794405  | 3.276043  | -0.081576 | C     | 2.414817  | -0.657193 | 0.000000  |  |
| H | 2.373872  | 0.445292  | -0.629688 | N     | 3.855564  | -0.694087 | 0.000000  |  |
| H | 2.257926  | 1.597227  | -2.844774 | C     | 4.556645  | 0.457449  | 0.000000  |  |
| H | 3.935261  | 1.139752  | -2.461681 | O     | 3.993964  | 1.566236  | 0.000000  |  |
| H | 3.409113  | 2.826347  | -2.260919 | C     | 6.063831  | 0.293006  | 0.000000  |  |
| H | 4.173276  | -0.199739 | 0.441117  | N     | 6.739688  | 1.567011  | 0.000000  |  |
| H | 5.426189  | 0.494160  | 2.567594  | C     | 8.102545  | 1.555709  | 0.000000  |  |
| H | 6.512675  | 0.330134  | 1.166154  | O     | 8.731532  | 0.488883  | 0.000000  |  |
| H | 5.888443  | 1.934874  | 1.631453  | C     | -6.464539 | -7.007488 | 0.000000  |  |
| C | 3.741428  | -4.040708 | 0.305265  | C     | 8.794107  | 2.899463  | 0.000000  |  |
| C | 2.827236  | -2.944112 | -0.192509 | H     | -6.160611 | -4.876454 | 0.000000  |  |
| O | 3.177062  | -1.751675 | -0.162578 | H     | -4.100365 | -3.819750 | 0.875344  |  |
| N | 1.634115  | -3.344798 | -0.690111 | H     | -4.100365 | -3.819750 | -0.875344 |  |
| C | 0.567332  | -2.413313 | -1.024861 | H     | -1.912422 | -5.402331 | 0.000000  |  |
| C | -0.654962 | -2.835248 | -0.219466 | H     | 0.236748  | -4.066975 | 0.878442  |  |
| O | -0.968979 | -4.035266 | -0.146212 | H     | 0.236748  | -4.066975 | -0.878442 |  |
| C | 0.245357  | -2.439646 | -2.516639 | H     | -0.057589 | -1.358979 | 0.000000  |  |
| N | -1.336994 | -1.827208 | 0.371142  | H     | 2.035989  | -0.116121 | -0.872840 |  |
| C | -2.585760 | -2.071020 | 1.064262  | H     | 2.035989  | -0.116121 | 0.872840  |  |
| C | -3.664677 | -1.197011 | 0.441205  | H     | 4.286010  | -1.614774 | 0.000000  |  |
| O | -3.477641 | 0.009721  | 0.222156  | H     | 6.366349  | -0.298556 | 0.874593  |  |
| C | -2.467061 | -1.763809 | 2.557407  | H     | 6.366349  | -0.298556 | -0.874593 |  |
| N | -4.855382 | -1.796481 | 0.212640  | H     | 6.199929  | 2.430115  | 0.000000  |  |
| C | -5.968286 | -1.057886 | -0.363211 | H     | -7.094761 | -7.073349 | -0.891483 |  |
| H | 4.702950  | -3.952808 | -0.205093 | H     | -7.094761 | -7.073349 | 0.891483  |  |
| H | 3.916752  | -3.891913 | 1.373771  | H     | -5.757080 | -7.836234 | 0.000000  |  |
| H | 3.337578  | -5.042410 | 0.144007  | H     | 9.440457  | 2.949867  | 0.880079  |  |
| H | 1.333969  | -4.307133 | -0.564522 | H     | 8.100444  | 3.739780  | 0.000000  |  |
| H | 0.896276  | -1.416099 | -0.728964 | H     | 9.440457  | 2.949867  | -0.880079 |  |
| H | -0.544384 | -1.716540 | -2.742558 | <hr/> |           |           |           |  |
| H | -0.092387 | -3.437576 | -2.810208 | C     | -3.929231 | 3.198935  | -1.191383 |  |
| H | 1.137071  | -2.177918 | -3.092007 | C     | -2.598163 | 3.597145  | -0.587814 |  |
| H | -1.024444 | -0.859813 | 0.243345  | O     | -2.160517 | 4.750556  | -0.664115 |  |
| H | -2.808801 | -3.133011 | 0.918920  | N     | -1.929231 | 2.582659  | 0.033106  |  |
| H | -3.416733 | -1.950851 | 3.068780  | C     | -0.629754 | 2.788446  | 0.631169  |  |
| H | -2.193417 | -0.715594 | 2.701656  | C     | 0.357970  | 1.814587  | 0.008947  |  |
| H | -1.694356 | -2.397475 | 2.999266  | O     | 0.053167  | 0.616857  | -0.153453 |  |

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|                               |           |           |           |       |           |           |           |
|-------------------------------|-----------|-----------|-----------|-------|-----------|-----------|-----------|
| H                             | -5.049145 | -3.131153 | -1.172277 | H     | -4.914418 | -2.803348 | 0.286516  |
| H                             | -4.650719 | -4.241954 | 0.163391  | H     | -5.798668 | -0.840453 | -1.421762 |
| H                             | -2.528330 | -3.866836 | 0.785269  | H     | -6.875848 | -1.652356 | -0.254662 |
| H                             | -1.507552 | -1.125982 | 0.626158  | H     | -6.084714 | -0.114075 | 0.170500  |
| H                             | -0.126582 | -1.501423 | 2.681577  | <hr/> |           |           |           |
| H                             | -0.907387 | -3.083290 | 2.912822  | C     | -5.022037 | 1.924695  | -1.396792 |
| H                             | -1.862541 | -1.587472 | 3.063721  | C     | -3.889160 | 2.645375  | -0.696434 |
| H                             | 0.422685  | -1.055792 | -0.424465 | O     | -3.800720 | 3.878677  | -0.679601 |
| H                             | 1.708262  | -3.691085 | -0.915192 | N     | -2.965890 | 1.822064  | -0.119738 |
| H                             | 2.452650  | -2.760045 | -3.157353 | C     | -1.828165 | 2.350166  | 0.596035  |
| H                             | 1.542126  | -1.274934 | -2.797711 | C     | -0.553075 | 1.805982  | -0.029158 |
| H                             | 0.680149  | -2.819389 | -2.994936 | O     | -0.463782 | 0.598831  | -0.325109 |
| H                             | 3.871389  | -3.802831 | -0.383883 | C     | -1.871628 | 1.968691  | 2.077051  |
| H                             | 5.257698  | -1.944551 | 1.119545  | N     | 0.444916  | 2.690773  | -0.218705 |
| H                             | 6.056266  | -3.095626 | 0.017589  | C     | 1.773724  | 2.299702  | -0.661703 |
| H                             | 5.625111  | -1.464227 | -0.549444 | C     | 2.760641  | 2.796533  | 0.388295  |
| <hr/>                         |           |           |           | O     | 2.662331  | 3.947186  | 0.837884  |
| antiparallel Ala tetrapeptide |           |           |           | C     | 2.101387  | 2.916679  | -2.019298 |
| C                             | -6.246146 | 2.324525  | -1.296926 | N     | 3.720592  | 1.906497  | 0.732221  |
| C                             | -5.025495 | 3.048830  | -0.768779 | C     | 4.752639  | 2.230806  | 1.698603  |
| O                             | -4.860261 | 4.263123  | -0.930611 | H     | -5.070064 | 0.866696  | -1.131862 |
| N                             | -4.132152 | 2.254861  | -0.109337 | H     | -5.959526 | 2.420865  | -1.138164 |
| C                             | -2.899678 | 2.790084  | 0.422914  | H     | -4.883244 | 2.020724  | -2.477499 |
| C                             | -1.732019 | 2.020125  | -0.171856 | H     | -3.105895 | 0.812261  | -0.122352 |
| O                             | -1.760128 | 0.776940  | -0.240860 | H     | -1.879620 | 3.437621  | 0.481590  |
| C                             | -2.850490 | 2.678282  | 1.947999  | H     | -0.993243 | 2.351187  | 2.607650  |
| N                             | -0.679925 | 2.754186  | -0.587265 | H     | -2.772072 | 2.386665  | 2.533909  |
| C                             | 0.588498  | 2.159718  | -0.982127 | H     | -1.897753 | 0.880282  | 2.178110  |
| C                             | 1.668336  | 2.780069  | -0.104808 | H     | 0.352192  | 3.643120  | 0.123486  |
| O                             | 1.688022  | 4.004077  | 0.099483  | H     | 1.782154  | 1.210142  | -0.723423 |
| C                             | 0.891083  | 2.424758  | -2.454776 | H     | 1.366498  | 2.596625  | -2.762291 |
| N                             | 2.569403  | 1.899476  | 0.387338  | H     | 3.098115  | 2.604335  | -2.345972 |
| C                             | 3.698617  | 2.323360  | 1.186229  | H     | 2.084323  | 4.007433  | -1.944091 |
| C                             | 3.615464  | 1.748045  | 2.600685  | H     | 3.658225  | 0.961060  | 0.360899  |
| C                             | 4.980024  | 1.840435  | 0.520813  | H     | 4.645590  | 1.627188  | 2.605212  |
| O                             | 5.108262  | 0.670404  | 0.127403  | H     | 5.746154  | 2.062694  | 1.273493  |
| N                             | 5.986880  | 2.742061  | 0.464907  | H     | 4.641261  | 3.283850  | 1.955789  |
| C                             | 7.278256  | 2.402763  | -0.111768 | C     | -4.850966 | -3.201084 | -0.100077 |
| H                             | -6.273179 | 1.275256  | -0.997590 | C     | -3.709935 | -2.269290 | 0.242363  |
| H                             | -7.138291 | 2.839329  | -0.932928 | O     | -3.806701 | -1.046809 | 0.053264  |
| H                             | -6.247834 | 2.395907  | -2.387779 | N     | -2.613516 | -2.855216 | 0.787552  |
| H                             | -4.297475 | 1.253552  | -0.025609 | C     | -1.377965 | -2.131015 | 1.030792  |
| H                             | -2.870572 | 3.840559  | 0.116909  | C     | -0.270012 | -2.862777 | 0.284696  |
| H                             | -1.910588 | 3.079949  | 2.340971  | O     | -0.185547 | -4.100483 | 0.341213  |
| H                             | -3.684329 | 3.235523  | 2.381721  | C     | -1.046977 | -2.071872 | 2.520457  |
| H                             | -2.932453 | 1.627876  | 2.242274  | N     | 0.587618  | -2.065671 | -0.395519 |
| H                             | -0.667749 | 3.757363  | -0.424815 | C     | 1.716815  | -2.614838 | -1.115443 |
| H                             | 0.513934  | 1.086999  | -0.793756 | C     | 2.994523  | -1.973075 | -0.597013 |
| H                             | 0.095199  | 2.008693  | -3.077731 | O     | 3.086654  | -0.741844 | -0.462950 |
| H                             | 1.840999  | 1.958546  | -2.734259 | C     | 1.592457  | -2.352034 | -2.617012 |
| H                             | 0.960932  | 3.501406  | -2.633350 | N     | 4.036344  | -2.804919 | -0.376819 |
| H                             | 2.463692  | 0.902217  | 0.190729  | C     | 5.317870  | -2.296564 | 0.085453  |
| H                             | 3.656051  | 3.416923  | 1.216943  | H     | -5.746344 | -2.861791 | 0.425244  |
| H                             | 4.477477  | 2.058498  | 3.199684  |       |           |           |           |

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|   |           |           |           |                           |           |           |           |  |
|---|-----------|-----------|-----------|---------------------------|-----------|-----------|-----------|--|
| C | 3.488032  | -2.490941 | 0.419814  | H                         | 2.700193  | 2.096150  | 3.085446  |  |
| C | 2.238725  | -1.845986 | -0.157348 | H                         | 3.599172  | 0.655948  | 2.549301  |  |
| O | 2.149323  | -0.607349 | -0.235435 | H                         | 5.784106  | 3.707098  | 0.688318  |  |
| C | 3.458930  | -2.358661 | 1.944191  | H                         | 7.705666  | 1.546856  | 0.413198  |  |
| N | 1.251705  | -2.686431 | -0.537146 | H                         | 7.941793  | 3.260532  | -0.000111 |  |
| C | -0.062526 | -2.214879 | -0.939795 | H                         | 7.182984  | 2.153032  | -1.171641 |  |
| C | -1.093900 | -2.882759 | -0.041215 | C                         | 6.215467  | -2.268351 | -1.391578 |  |
| O | -1.037371 | -4.099702 | 0.191092  | C                         | 5.011765  | -3.023429 | -0.872100 |  |
| C | -0.351141 | -2.557411 | -2.400057 | O                         | 4.844710  | -4.226955 | -1.099359 |  |
| N | -2.063771 | -2.055587 | 0.421500  | N                         | 4.142520  | -2.280758 | -0.122646 |  |
| C | -3.163594 | -2.550789 | 1.220581  | C                         | 2.921420  | -2.867155 | 0.386226  |  |
| C | -3.140952 | -1.949807 | 2.626944  | C                         | 1.741645  | -2.047386 | -0.109922 |  |
| C | -4.472924 | -2.185510 | 0.536895  | O                         | 1.768323  | -0.802999 | -0.075929 |  |
| O | -4.682124 | -1.033183 | 0.122824  | C                         | 2.909138  | -2.935803 | 1.914465  |  |
| N | -5.412404 | -3.154935 | 0.486385  | N                         | 0.682210  | -2.744695 | -0.567815 |  |
| C | -6.710820 | -2.912602 | -0.122311 | C                         | -0.578190 | -2.112742 | -0.925496 |  |
| H | 6.728273  | -0.734313 | -1.048797 | C                         | -1.671275 | -2.765321 | -0.091116 |  |
| H | 7.687556  | -2.245276 | -1.041338 | O                         | -1.709726 | -3.998607 | 0.041647  |  |
| H | 6.721526  | -1.832949 | -2.456276 | C                         | -0.884278 | -2.282679 | -2.411522 |  |
| H | 4.755280  | -0.843123 | -0.057121 | N                         | -2.565089 | -1.904545 | 0.452643  |  |
| H | 3.552060  | -3.544404 | 0.129988  | C                         | -3.732820 | -2.381466 | 1.164511  |  |
| H | 2.566531  | -2.835954 | 2.363052  | C                         | -3.694080 | -1.975347 | 2.638162  |  |
| H | 4.347468  | -2.833292 | 2.367525  | C                         | -4.973987 | -1.799952 | 0.503367  |  |
| H | 3.454655  | -1.300718 | 2.222266  | O                         | -5.055432 | -0.593835 | 0.222882  |  |
| H | 1.346881  | -3.684945 | -0.377322 | N                         | -6.002412 | -2.656940 | 0.312332  |  |
| H | -0.068778 | -1.133948 | -0.792453 | C                         | -7.246800 | -2.211895 | -0.295232 |  |
| H | 0.405951  | -2.102330 | -3.043822 | H                         | 6.175933  | -1.204152 | -1.157852 |  |
| H | -1.337327 | -2.180514 | -2.689299 | H                         | 7.116304  | -2.707092 | -0.954748 |  |
| H | -0.334864 | -3.641983 | -2.539692 | H                         | 6.271767  | -2.412141 | -2.473088 |  |
| H | -2.001333 | -1.052102 | 0.235468  | H                         | 4.283179  | -1.276948 | -0.015856 |  |
| H | -3.035045 | -3.636953 | 1.270411  | H                         | 2.885376  | -3.879184 | -0.029322 |  |
| H | -3.981993 | -2.318118 | 3.223040  | H                         | 1.977022  | -3.381897 | 2.276995  |  |
| H | -2.206553 | -2.220468 | 3.124236  | H                         | 3.749260  | -3.546228 | 2.254538  |  |
| H | -3.206977 | -0.860108 | 2.562790  | H                         | 3.005165  | -1.933790 | 2.341047  |  |
| H | -5.144087 | -4.102068 | 0.719393  | H                         | 0.669391  | -3.757563 | -0.488384 |  |
| H | -7.134065 | -1.994382 | 0.287248  | H                         | -0.488890 | -1.054233 | -0.678761 |  |
| H | -7.368263 | -3.749971 | 0.111864  | H                         | -0.078658 | -1.846898 | -3.008025 |  |
| H | -6.628665 | -2.806590 | -1.207867 | H                         | -1.822032 | -1.776359 | -2.660425 |  |
| C | 6.520459  | 3.169898  | -0.236013 | H                         | -0.978797 | -3.344325 | -2.656838 |  |
| C | 5.395041  | 2.264791  | 0.212737  | H                         | -2.477884 | -0.901171 | 0.269303  |  |
| O | 5.476901  | 1.032821  | 0.084627  | H                         | -3.714787 | -3.472738 | 1.076805  |  |
| N | 4.325998  | 2.884052  | 0.773257  | H                         | -4.581203 | -2.340283 | 3.165639  |  |
| C | 3.089970  | 2.182156  | 1.075406  | H                         | -2.802105 | -2.396026 | 3.108503  |  |
| C | 1.967445  | 2.905545  | 0.341813  | H                         | -3.661345 | -0.885947 | 2.722023  |  |
| O | 1.896185  | 4.144534  | 0.365932  | H                         | -5.838343 | -3.647153 | 0.436485  |  |
| C | 2.804436  | 2.171430  | 2.575423  | H                         | -7.575699 | -1.294634 | 0.194374  |  |
| N | 1.085192  | 2.094162  | -0.284993 | H                         | -7.999848 | -2.988334 | -0.157890 |  |
| C | -0.114478 | 2.600232  | -0.919702 | H                         | -7.120469 | -2.010635 | -1.362969 |  |
| C | -1.307312 | 1.889380  | -0.297728 | <hr/>                     |           |           |           |  |
| O | -1.264713 | 0.657646  | -0.118233 | parallel Ala tetrapeptide |           |           |           |  |
| C | -0.096308 | 2.345596  | -2.427190 | C                         | 6.754526  | -1.778210 | -1.364681 |  |
| N | -2.371507 | 2.650930  | 0.018347  | C                         | 5.600156  | -2.584404 | -0.809102 |  |
| C | -3.632773 | 2.085514  | 0.473966  | O                         | 5.522071  | -3.809960 | -0.958554 |  |
|   |           |           |           | N                         | 4.656132  | -1.854378 | -0.144856 |  |

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|   |           |          |           |
|---|-----------|----------|-----------|
| C | -3.947757 | 2.525535 | 1.901217  |
| C | -4.715173 | 2.577087 | -0.479317 |
| O | -4.748665 | 3.769634 | -0.815771 |
| N | -5.599024 | 1.631065 | -0.870515 |
| C | -6.710361 | 1.940746 | -1.750846 |
| H | 6.370621  | 4.213843 | 0.047950  |
| H | 7.453848  | 2.806244 | 0.198252  |
| H | 6.611012  | 3.102486 | -1.323190 |
| H | 4.242906  | 3.894790 | 0.718799  |
| H | 3.197823  | 1.162826 | 0.700406  |
| H | 1.876616  | 1.627641 | 2.780075  |
| H | 3.626127  | 1.682678 | 3.105681  |
| H | 2.699524  | 3.196150 | 2.942949  |
| H | 1.237663  | 1.083082 | -0.276244 |
| H | -0.144081 | 3.674791 | -0.712531 |
| H | 0.762435  | 2.852595 | -2.873564 |
| H | -1.013004 | 2.717283 | -2.896572 |
| H | -0.013400 | 1.271789 | -2.617072 |
| H | -2.395996 | 3.631776 | -0.247533 |
| H | -3.534467 | 1.000093 | 0.420886  |
| H | -4.889858 | 2.078923 | 2.234009  |
| H | -3.146901 | 2.210953 | 2.575729  |
| H | -4.043896 | 3.614008 | 1.941992  |
| H | -5.430793 | 0.666968 | -0.591491 |
| H | -6.729340 | 3.021674 | -1.887140 |
| H | -7.654224 | 1.612109 | -1.307446 |
| H | -6.586142 | 1.458436 | -2.725018 |

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