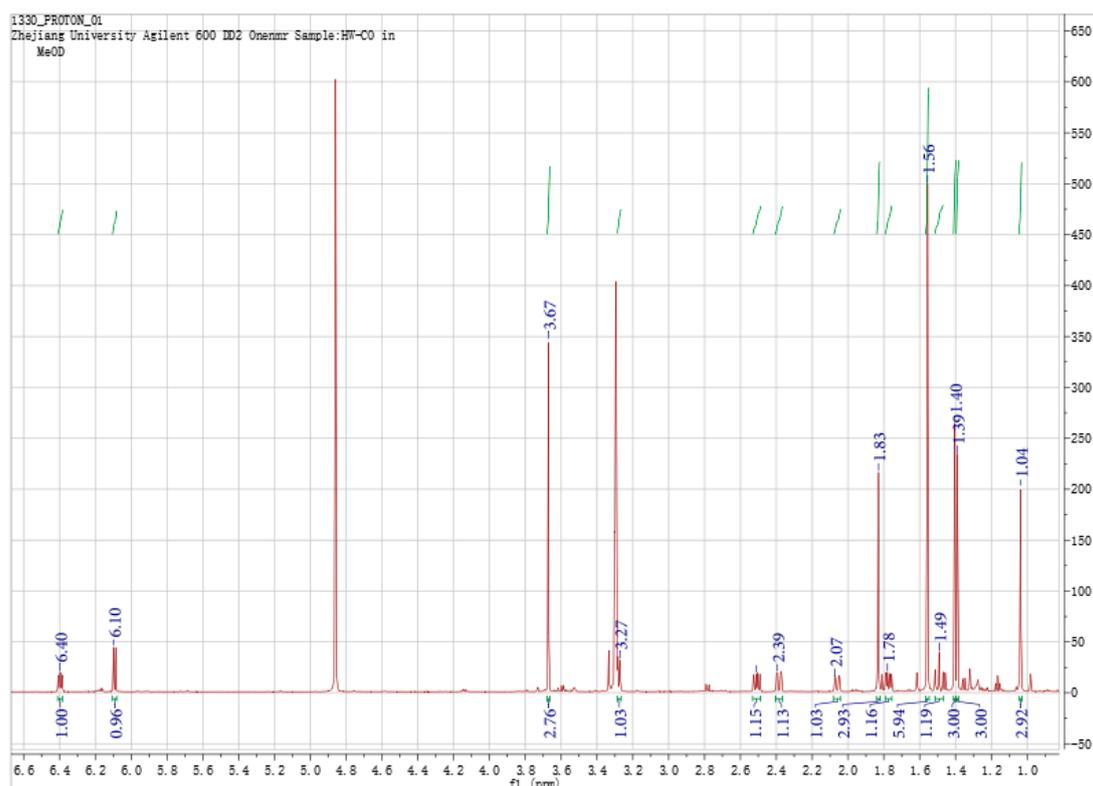
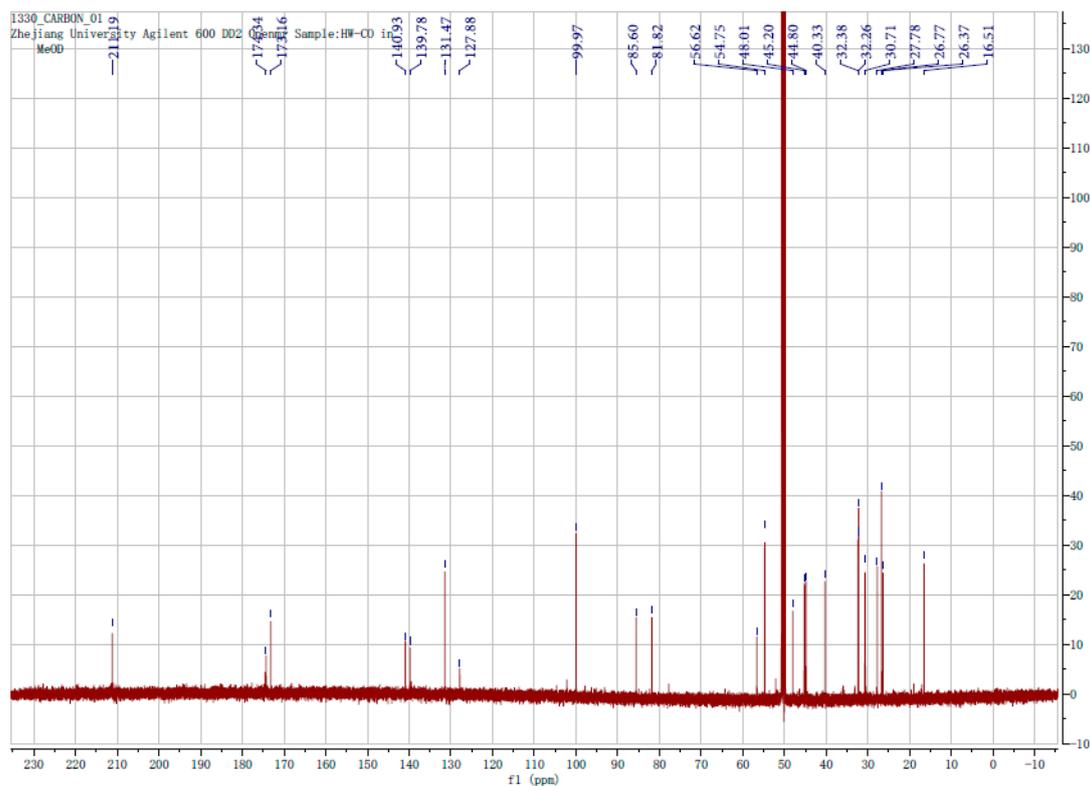


# Supplementary Materials: An Unusual Stress Metabolite Induced by Cobalt from a Hydrothermal Vent Fungus *Aspergillus* sp. WU 243

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Figure S1. <sup>1</sup>H-NMR spectrum for compound 1.Figure S2. <sup>13</sup>C-NMR spectrum for compound 1.

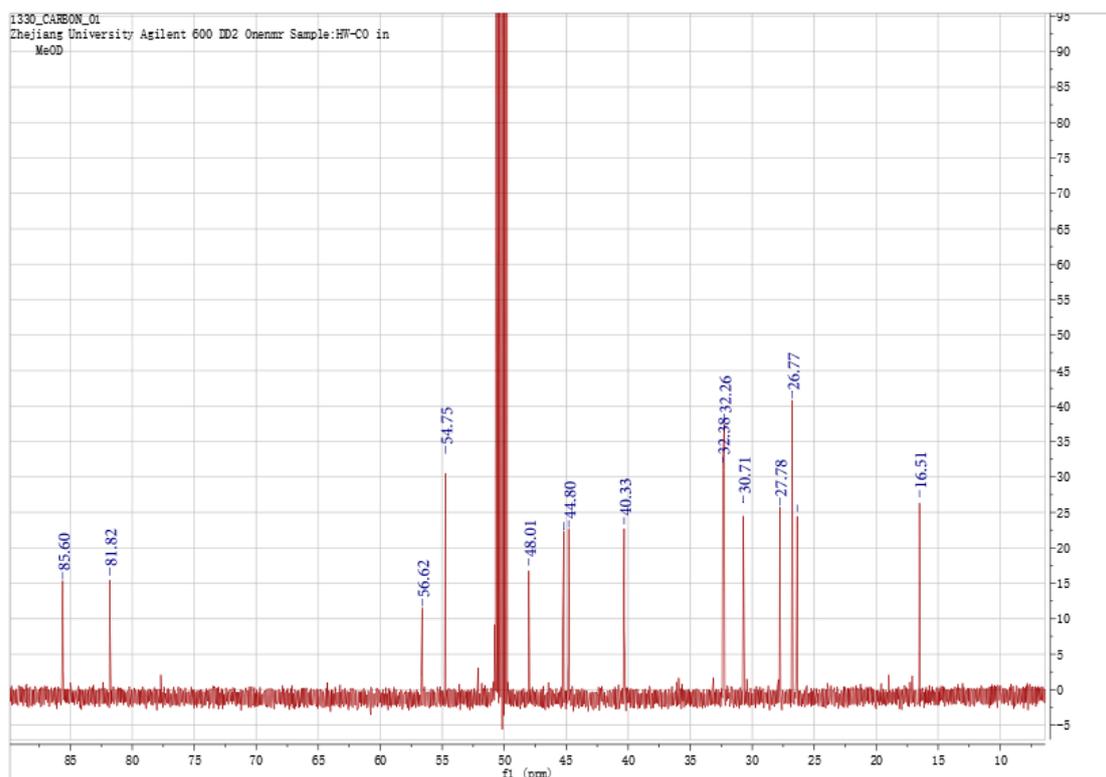


Figure S3. Partially enlarged detail of  $^{13}\text{C}$ -NMR spectrum for compound 1.

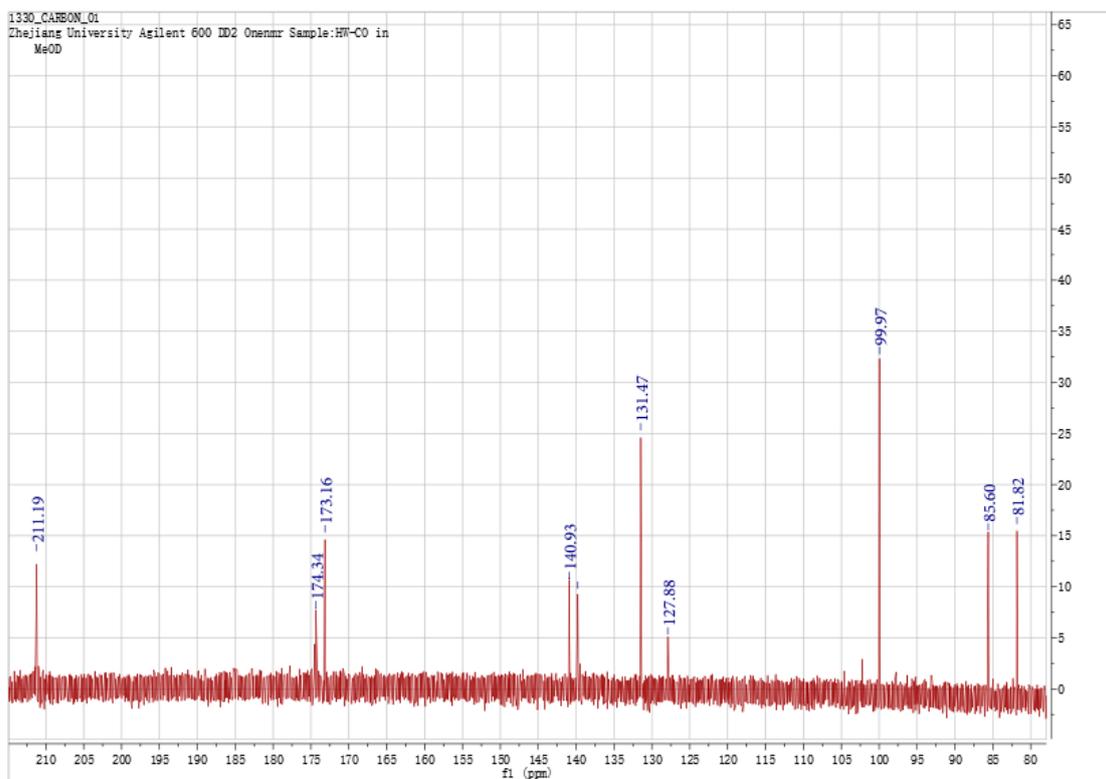


Figure S4. Partially enlarged detail of  $^{13}\text{C}$ -NMR spectrum for compound 1.

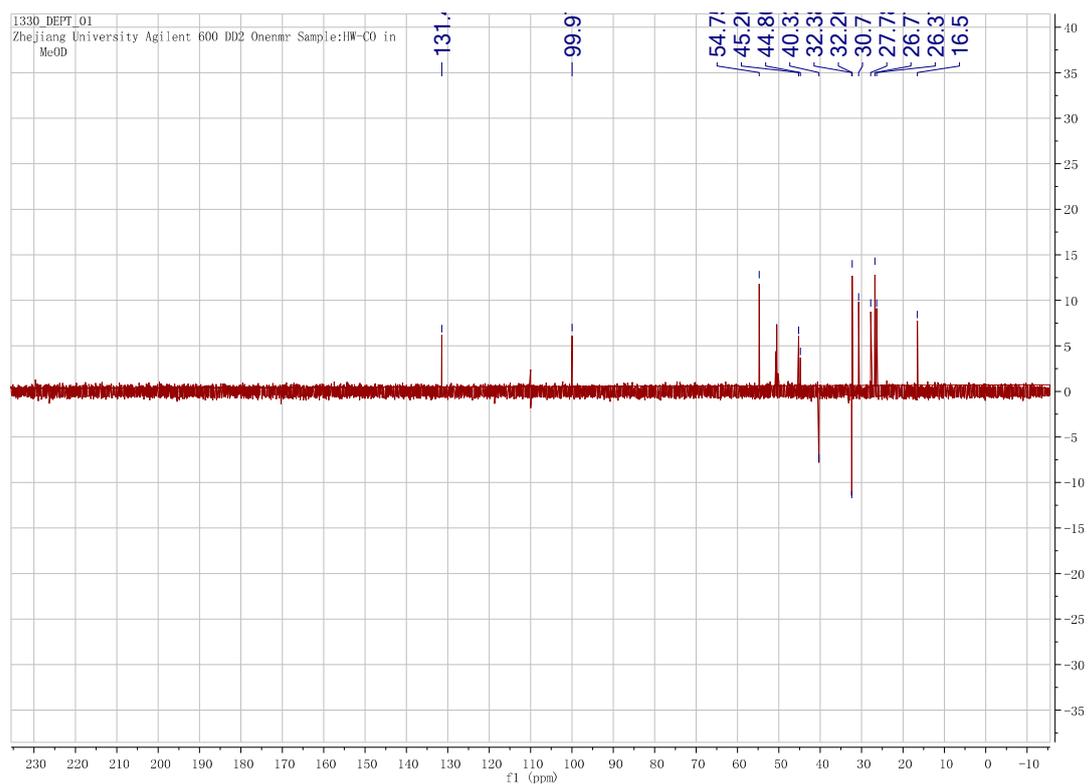


Figure S5. DEPT spectrum for compound 1.

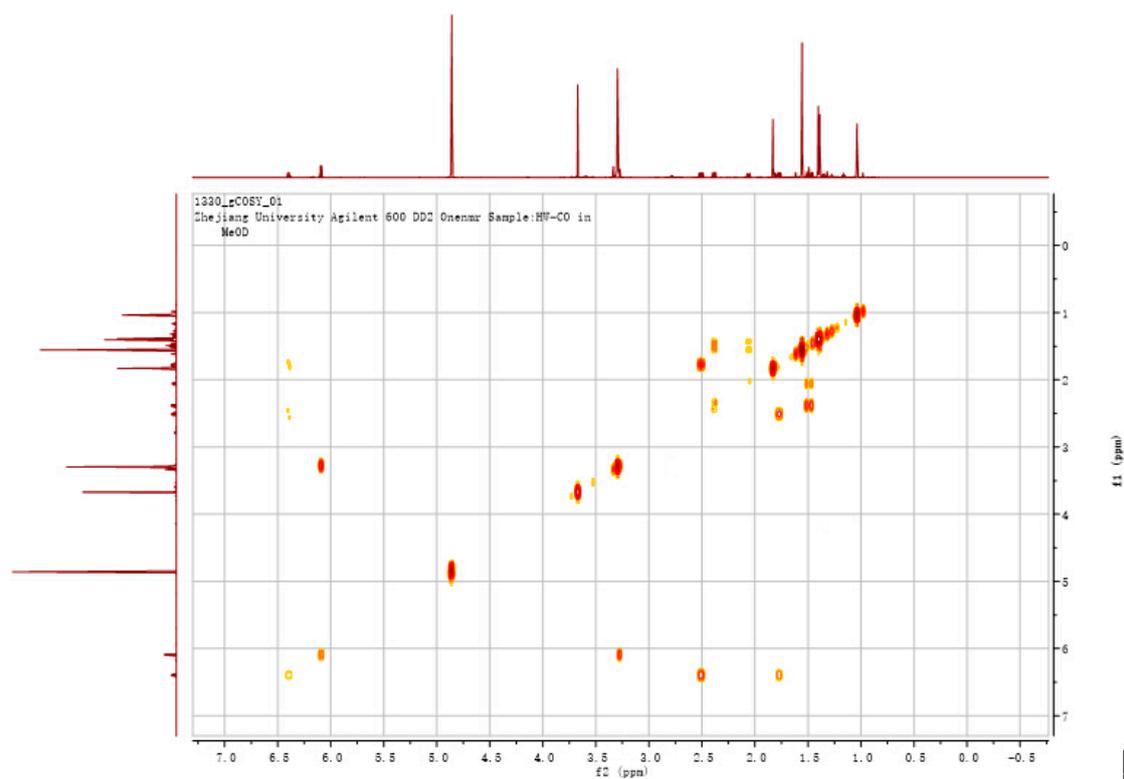


Figure S6. COSY spectrum for compound 1.

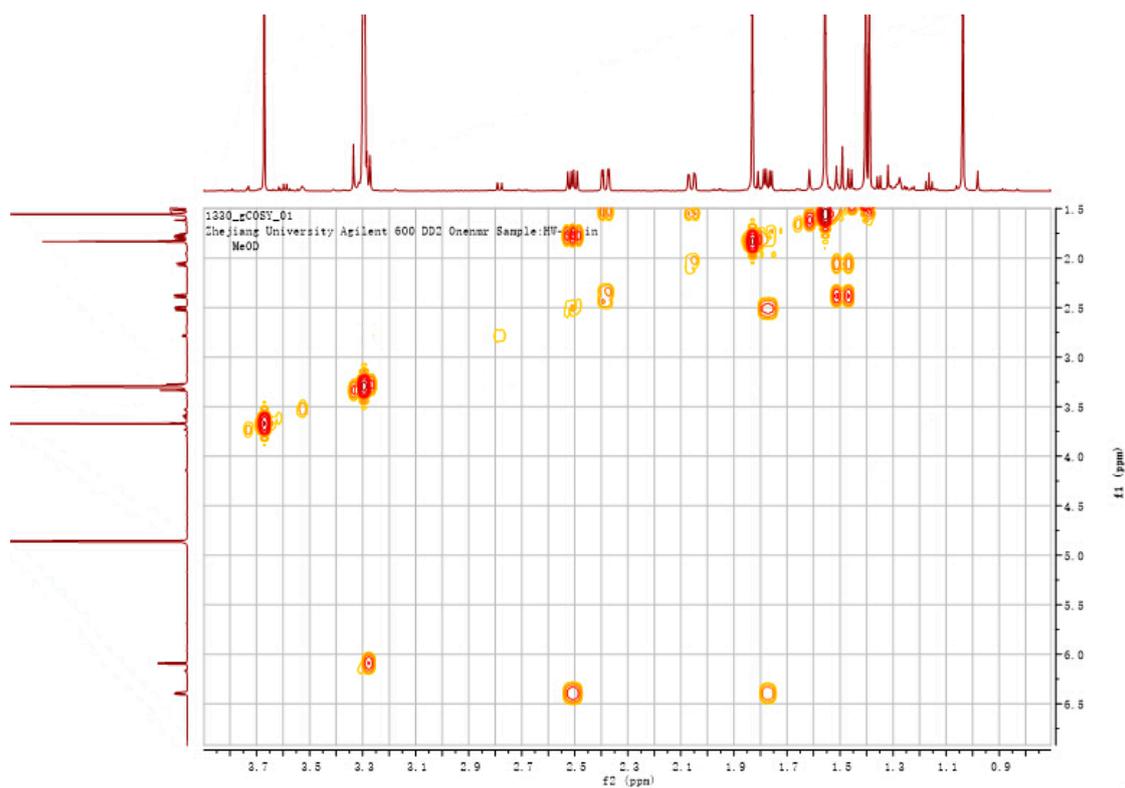


Figure S7. Partially enlarged detail of COSY spectrum for compound 1.

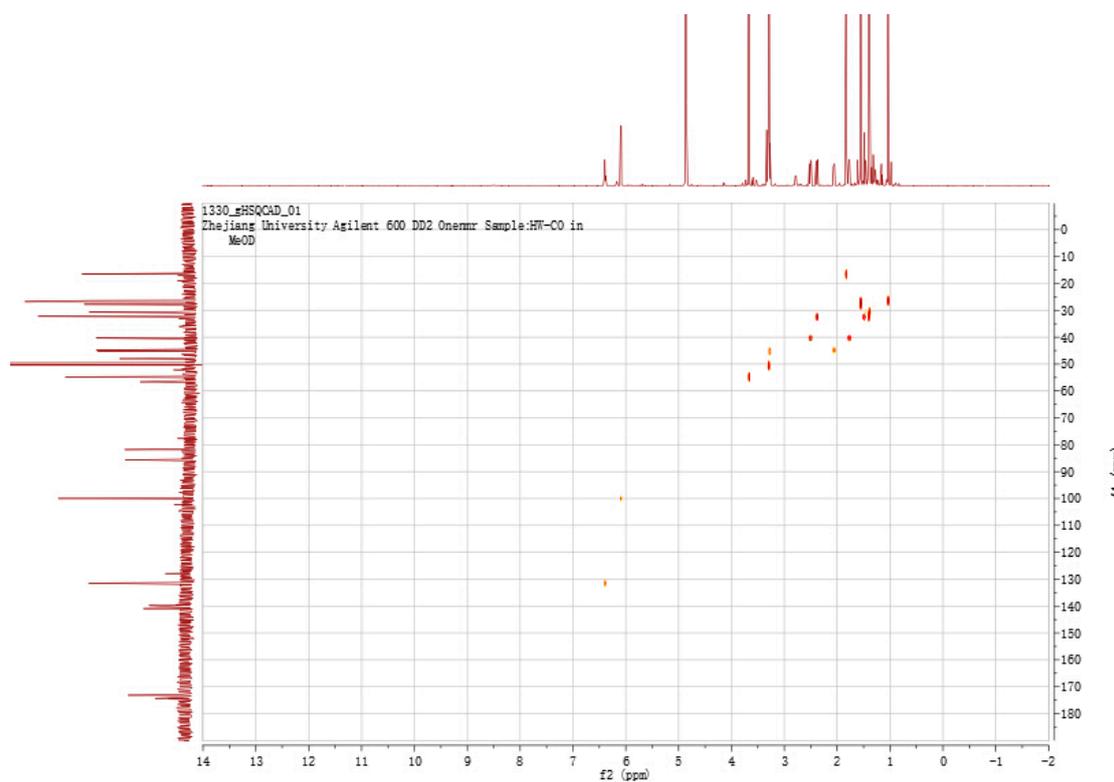


Figure S8. HSQC spectrum for compound 1.

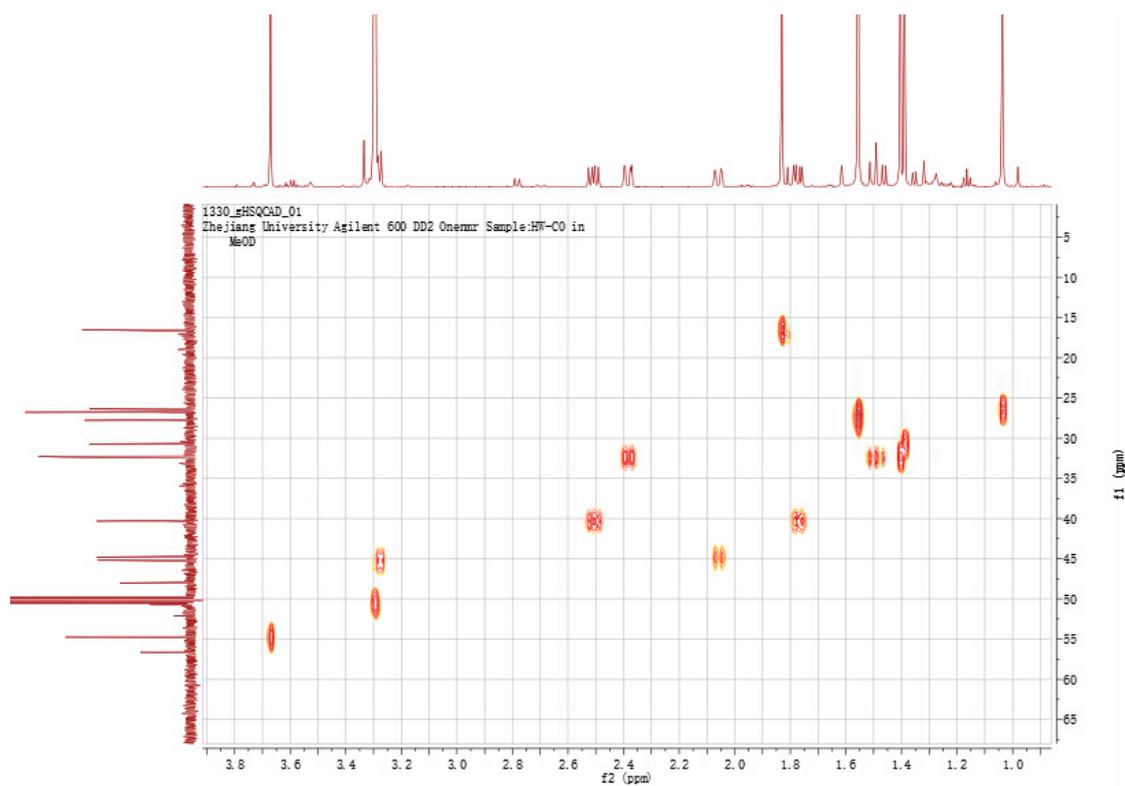


Figure S9. Partially enlarged detail of HSQC spectrum for compound 1.

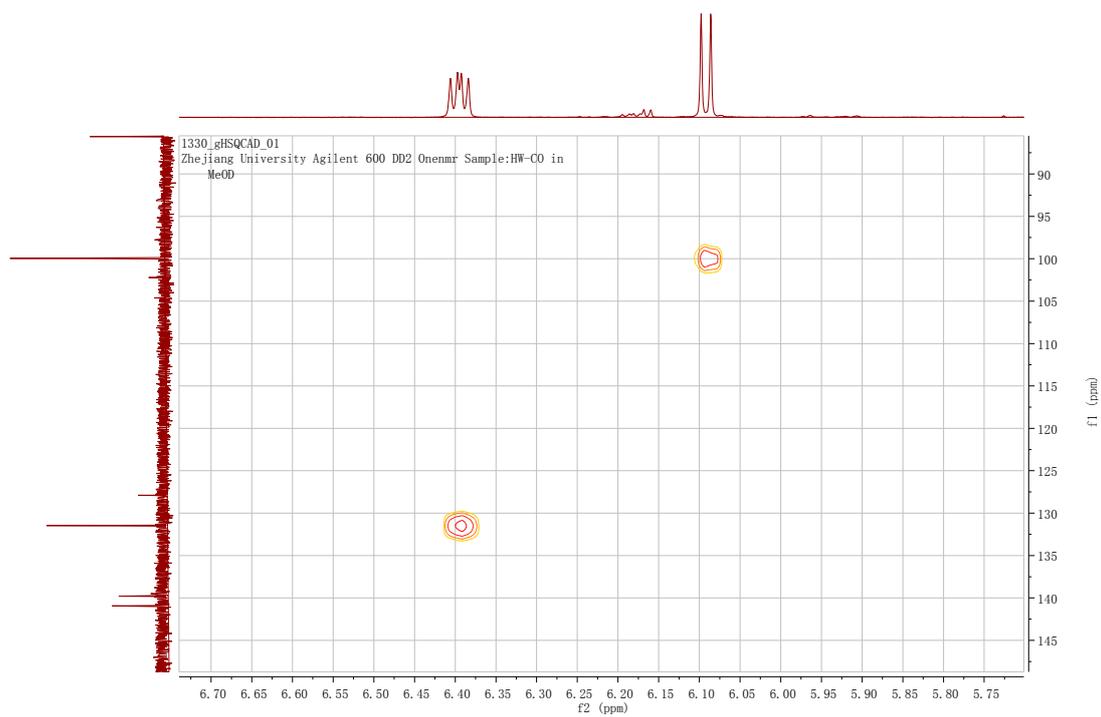


Figure S10. Partially enlarged detail of HSQC spectrum for compound 1.

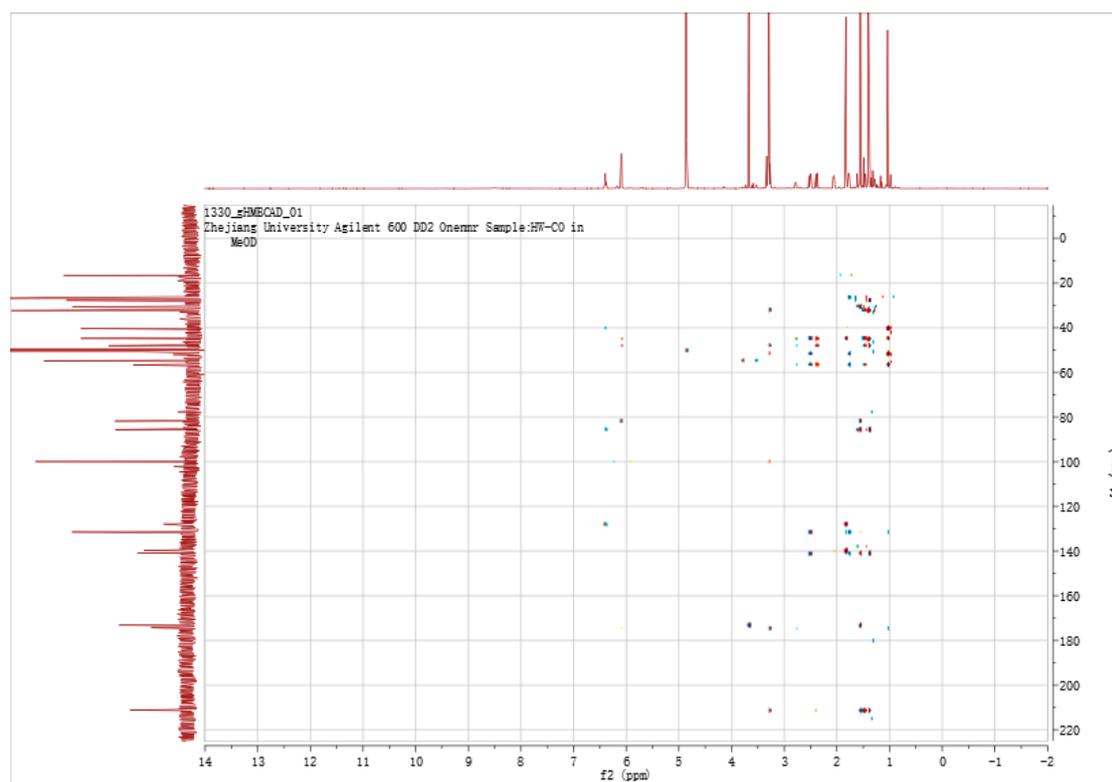


Figure S11. HMBC spectrum for compound 1.

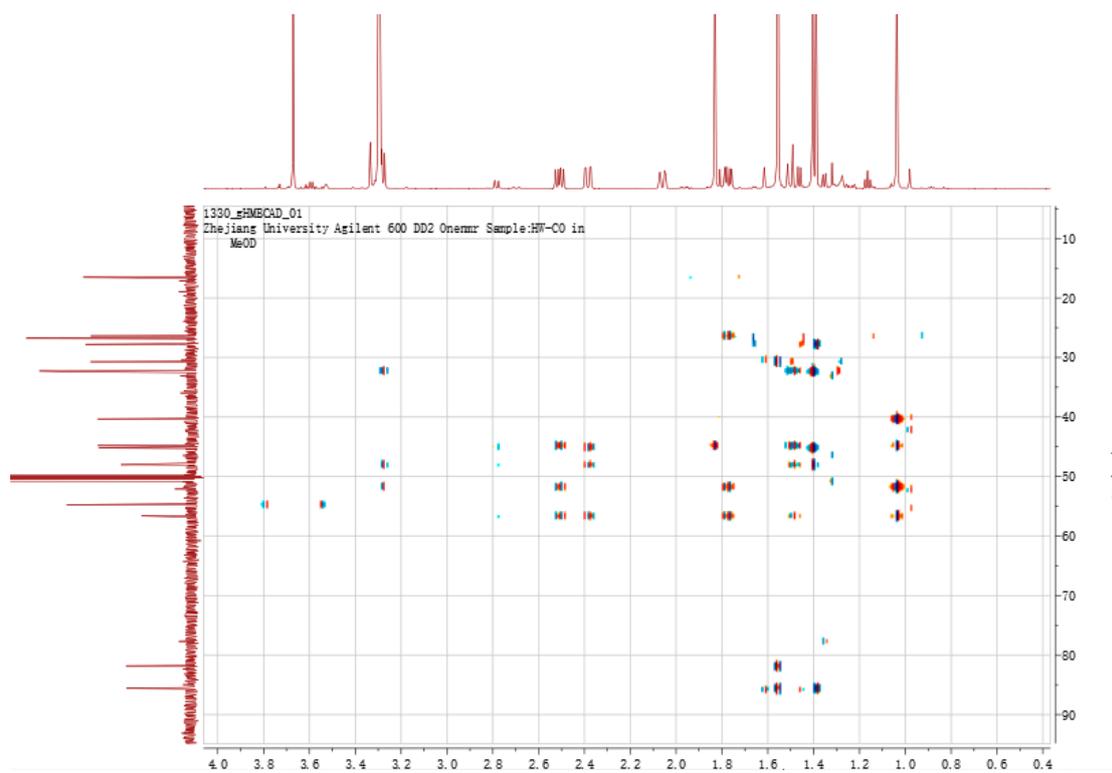


Figure S12. Partially enlarged detail of HMBC spectrum for compound 1.

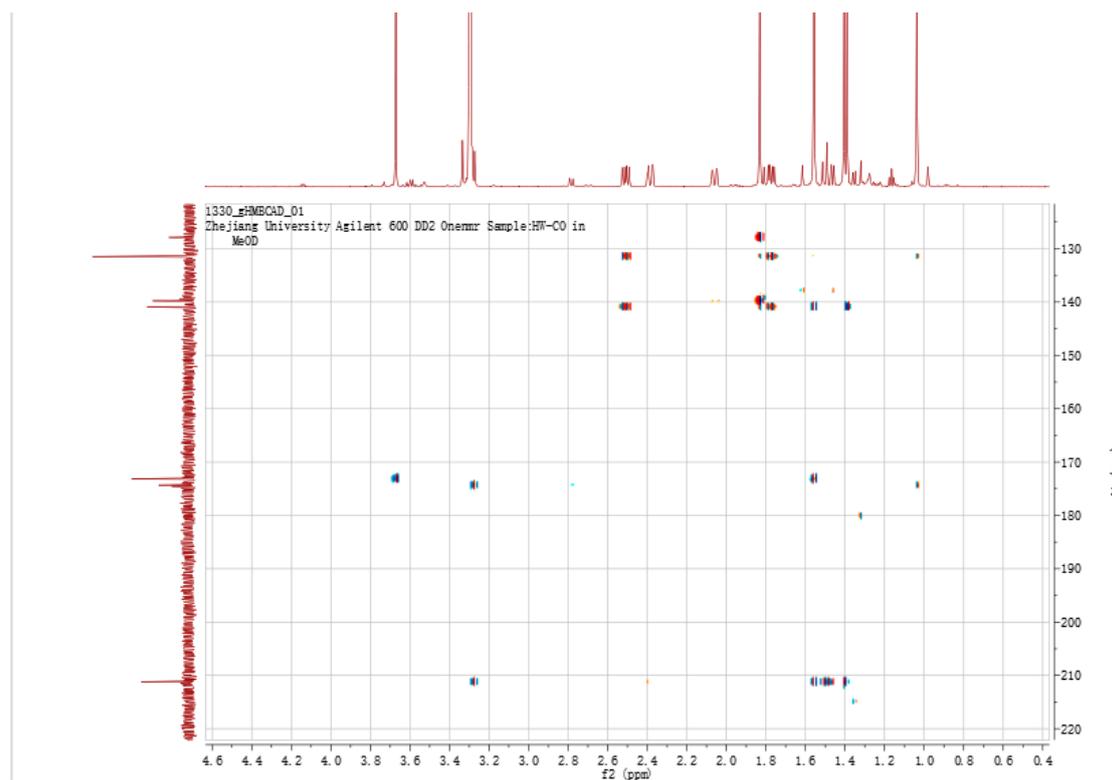


Figure S13. Partially enlarged detail of HMBC spectrum for compound 1.

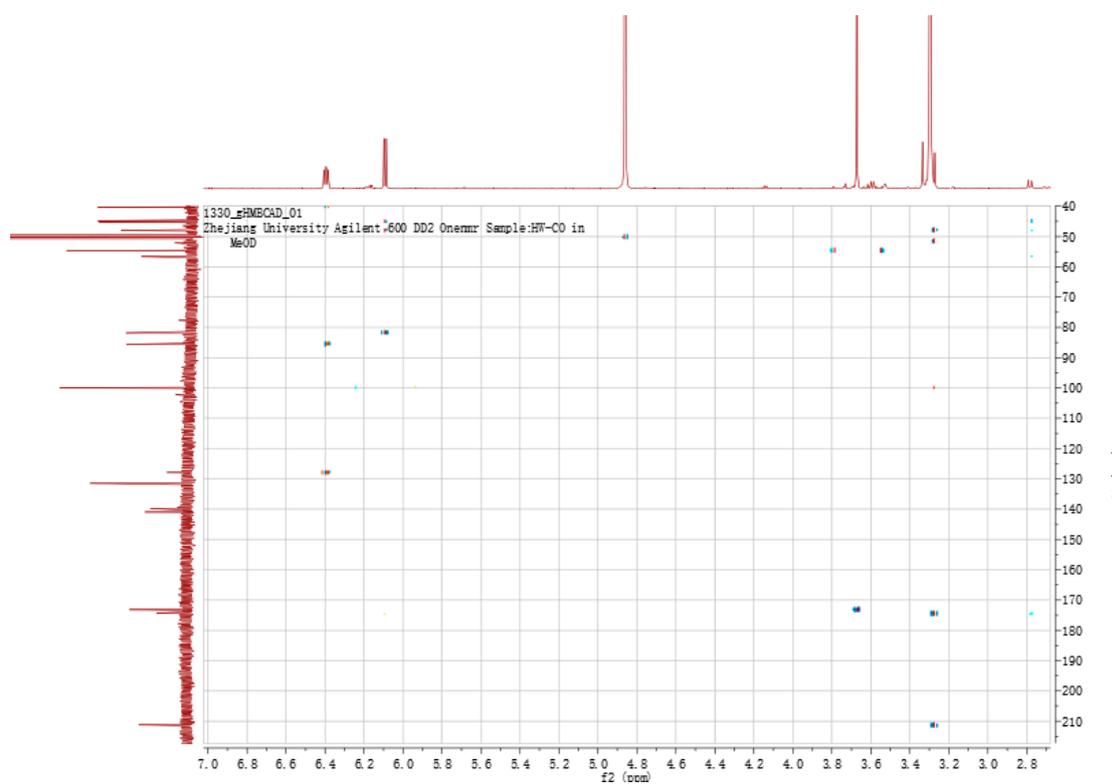


Figure S14. Partially enlarged detail of HMBC spectrum for compound 1.

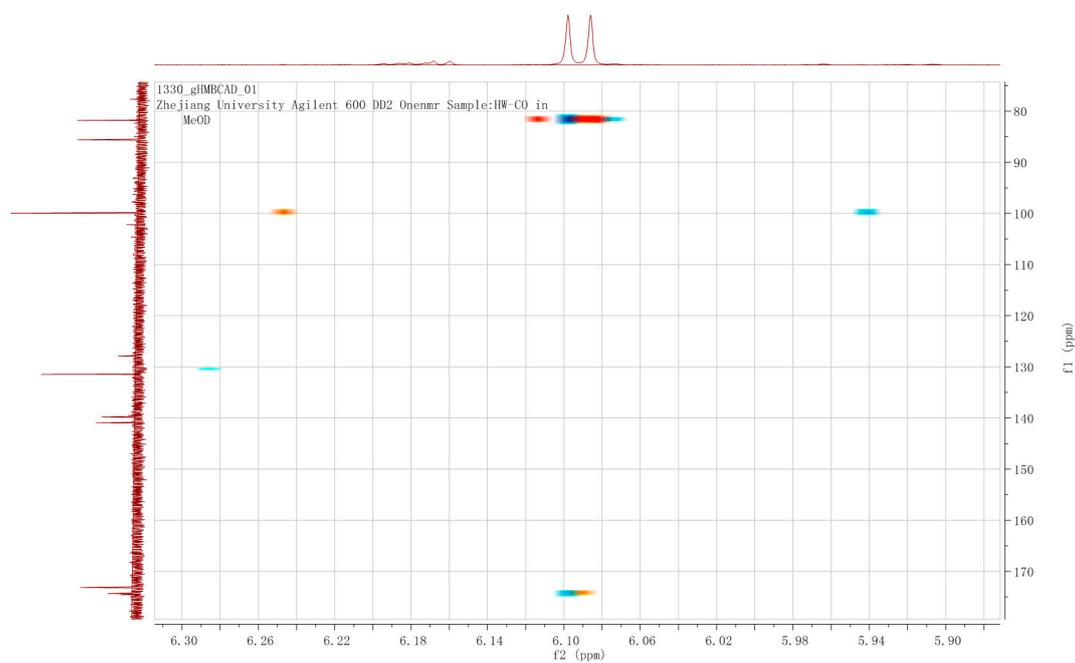


Figure S15. Partially enlarged detail of HMBC spectrum for compound 1.

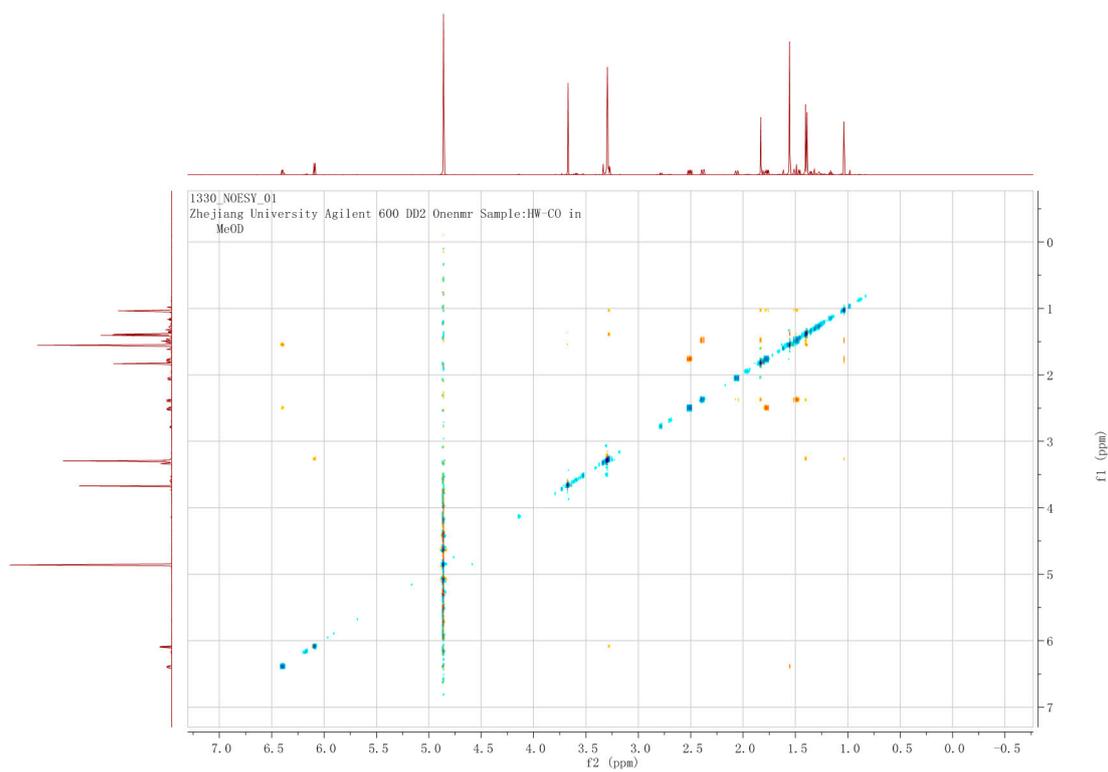


Figure S16. NOESY spectrum for compound 1.

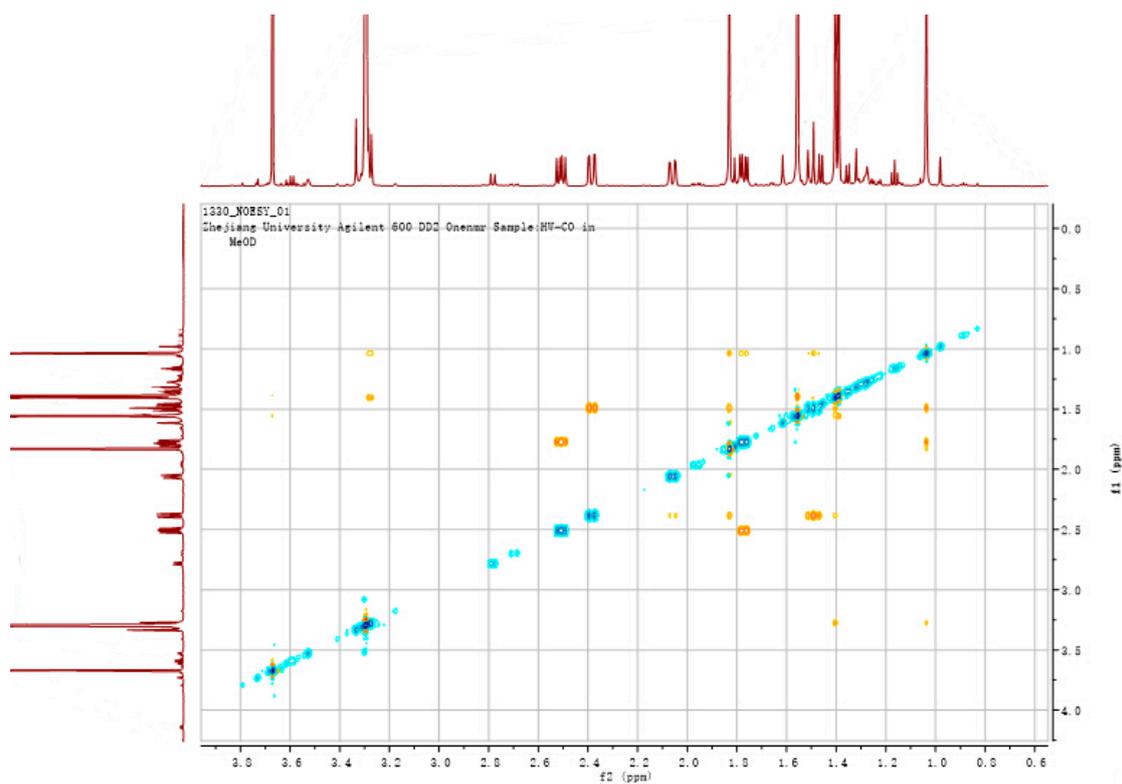


Figure S17. Partially enlarged detail of NOESY spectrum for compound 1.

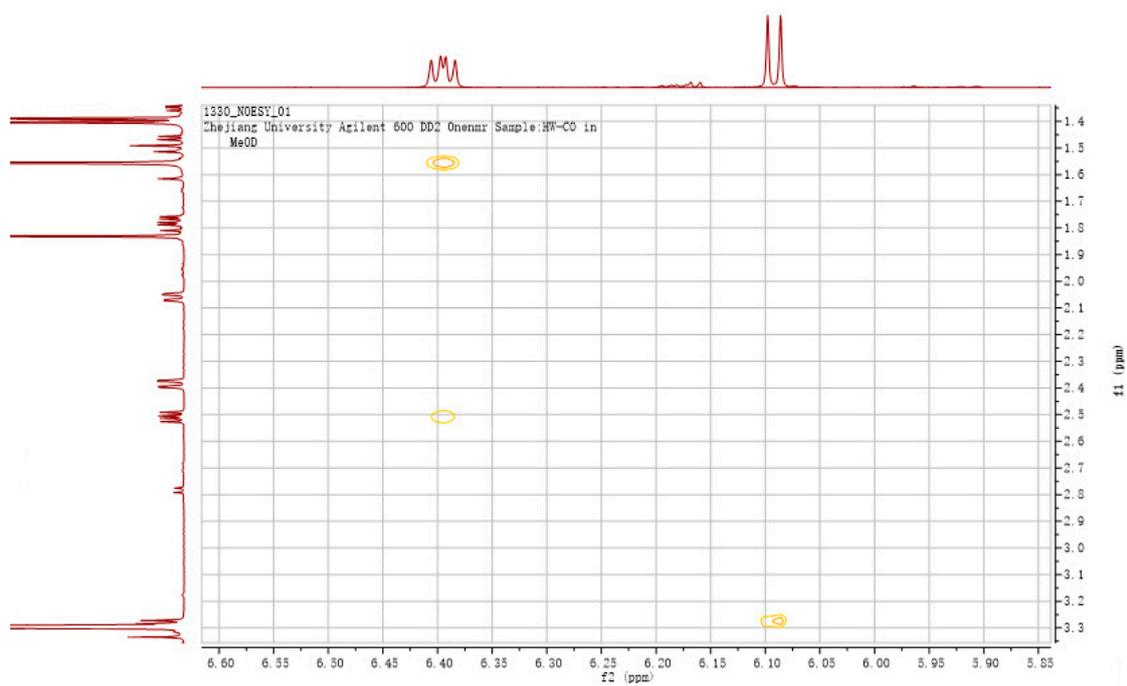


Figure S18. Partially enlarged detail of NOESY spectrum for compound 1.

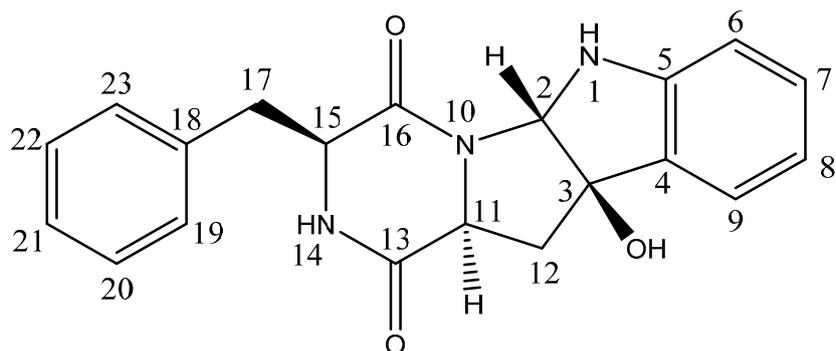


Figure S19. Structure of normal main product ditryptophenaline.

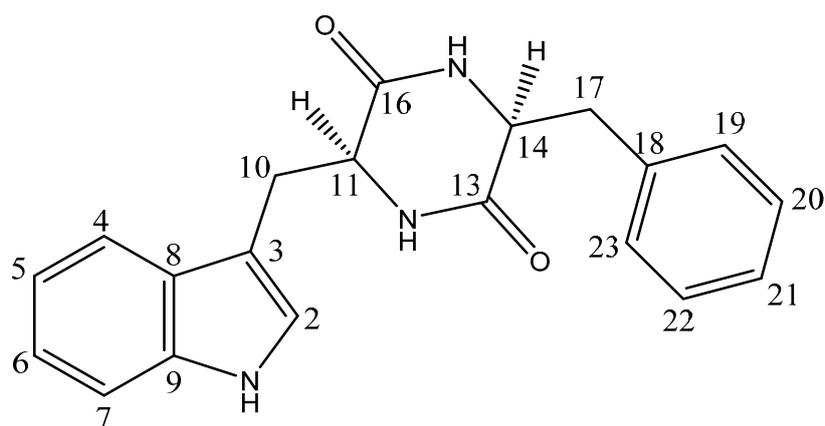


Figure S20. Structure of known compound Cyclo-(L-tryptophyl-L-phenylalanyl).

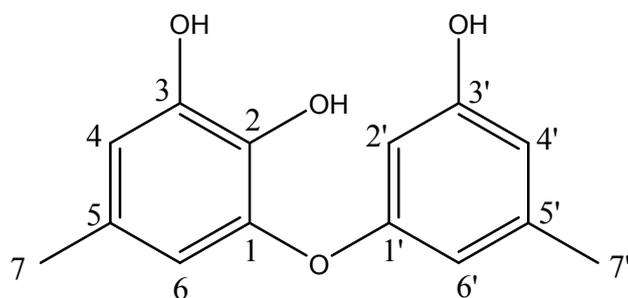


Figure S21. Structure of known compound Cordyol C.

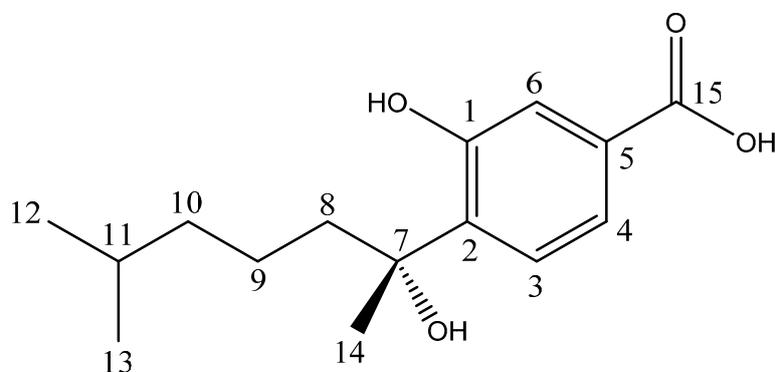


Figure S22. Structure of known compound sydonic acid.

**Table S1.** <sup>1</sup>H- and <sup>13</sup>C-NMR (CD<sub>3</sub>OD-*d*<sub>4</sub>, 500 MHz) data for known compound ditryptophenaline.

Position	$\delta_{\text{H}}$ (J in Hz)	$\delta_{\text{C}}$ (mult.)
1	N	--
2	4.90(s)	79.45 (CH)
3	--	56.64 (C)
4	--	130.12 (C)
5	--	149.12 (C)
6	6.69 (d,7.8)	109.25 (CH)
7	6.96 (m)	126.23 (CH)
8	6.77 (ddd,0.8,7.4,7.4)	119.02 (CH)
9	7.32 (d,7.4)	124.74 (CH)
10	N	--
11	3.99 (ddd,1.5,8.7,8.7)	56.24 (CH)
12	3.06 (m) 2.66 (dd, 1.5,8.7)	36.45 (CH <sub>2</sub> )
13	--	169.14 (C)
14	N	--
15	4.19 (ddd,1.6,5,5)	59.70 (CH)
16	--	167.57 (C)
17	3.06 (m)	36.01 (CH <sub>2</sub> )
18	--	135.45 (C)
19,23	7.03 (m)	127.86 (CH)
20,22	6.96 (m)	129.06 (CH)
21	7.14 (ddd,0.9,7.8,7.8)	125.15 (CH)

**Table S2.** <sup>1</sup>H- and <sup>13</sup>C-NMR (CD<sub>3</sub>OD-*d*<sub>4</sub>, 500 MHz) data for known compound Cyclo-(L-tryptophyl-L-phenylalanyl).

Position	$\delta_{\text{H}}$ (J in Hz)	$\delta_{\text{C}}$ (mult.)
1	10.89 (s)	--
2	6.96 (d, 2)	120.83 (CH)
3	--	108.76 (C)
4	7.48 (dd, 8, 8)	118.37 (CH)
5	6.98 (ddd, 8, 8, 1.5)	118.71 (CH)
6	7.07 (ddd, 8, 8, 1)	124.37 (CH)
7	7.32 (dd, 8, 8)	111.29 (CH)
8	1.80 (m)	127.49 (C)
9	1.14 (m)	136.01 (C)
10	2.80 (dd, 14.5, 4.5)	29.66 (CH <sub>2</sub> )
11	3.97 (m)	55.23 (CH)
12	7.91 (d, 1.5)	--
13	--	166.13 (C)
14	3.86 (m)	55.58 (CH)
15	7.72 (d, 2)	--
16	--	166.77 (C)
17	1.86 (m)	39.70 (CH <sub>2</sub> )
18	--	136.51 (C)
19,23	7.16 (m)	127.99 (CH)
20,22	6.71 (m)	129.66 (CH)
21	7.17 (m)	126.32 (CH)

**Table S3.**  $^1\text{H}$ - and  $^{13}\text{C}$ -NMR ( $\text{CD}_3\text{OD}-d_4$ , 500 MHz) data for known compound Cordyol C.

Position	$\delta_{\text{H}}$ (J in Hz)	$\delta_{\text{C}}$ (mult)
1	--	145.15 (C)
2	--	135.76 (C)
3	--	147.49 (C)
4	6.45 (d, 1.5)	112.84 (CH)
5	--	129.87 (C)
6	6.24 (d, 1.5)	113.24 (CH)
7	2.14 (s)	20.70 ( $\text{CH}_3$ )
1'	--	160.35 (C)
2'	6.16 (dd, 2, 2)	102.56 (CH)
3'	--	159.18 (C)
4'	6.29 (br s)	111.02 (CH)
5'	--	141.14 (C)
6'	6.21 (br s)	110.02 (CH)
7'	2.20 (s)	21.37 ( $\text{CH}_3$ )

**Table S4.**  $^1\text{H}$ - and  $^{13}\text{C}$ -NMR ( $\text{CD}_3\text{OD}-d_4$ , 500 MHz) data for known compound Sydonic acid.

Position	$\delta_{\text{H}}$ (J in Hz)	$\delta_{\text{C}}$ (mult.)
1	--	155.94 (C)
2	--	135.36 (C)
3	7.06 (d, 8.0)	126.33 (CH)
4	7.52 (d, 8.0)	121.14 (CH)
5	--	129.94 (C)
6	7.53 (s)	119.18 (CH)
7	--	78.85 (C)
8	1.80 (m)	42.81 (CH)
9	1.14 (m)	21.62 ( $\text{CH}_2$ )
10	1.28 (m)	38.99 ( $\text{CH}_2$ )
11	1.49 (m)	27.75 (CH)
12	--	22.52 ( $\text{CH}_3$ )
13	0.82 (d, 6.5)	22.50 ( $\text{CH}_3$ )
14	1.66 (s)	28.76 ( $\text{CH}_3$ )
15	--	171.36 (C)