

Supplemental File S1: NMR and mass spectrometry of dihydroisocoumarins

Table A1: NMR assignments of hydrangenol 8-O-glc (1), thunberginol G-3'-glc (2) and phyllodulcin 8-O-glc (3)

| hydrangenol 8-O-glc (1) | | | | thunberginol G-3'-glc (2) | | | phyllodulcin 8-O-glc (3) | | |
|-------------------------|----------------------------------|-------------|---|----------------------------------|--------------|---|----------------------------------|------------|--|
| No | δ_H (Multiplicity, J, nH) | δ_C | HMBC | δ_H (Multiplicity, J, nH) | δ_C | HMBC | δ_H (Multiplicity, J, nH) | δ_C | HMBC |
| 1 | - | 162.8/161.2 | - | - | 169.1/ 169.2 | - | - | 162.7 | - |
| 3 | 5.48/5.40 (dd, 11.6,2.6 Hz, 1H) | 79.0/78.4 | 141.7/142.0(10), 128.2(6',2') | 5.62/5.64 (dd, 12.4,3.2 Hz, 1H) | 80.2/ 80.4 | 121.5/121.7(6'), 129.0/129.0(1'), 140.5/140.5(10) | 5.45 (dd, 12.3,3.2 Hz, 1H) | 78.8 | 113.9(2'), 117.5(6'), 130.8(1'), 141.9(10) |
| 4a | 3.35/3.35 (m, 1H) | 34.7/34.8 | - | 3.42/ 3.42 (m, 1H) | 33.2/ 33.2 | 80.2/80.4(3), 140.5/140.5(10) | 3.3 (m, 1H) | 34.9 | - |
| 4b | 3.09/3.08 (dd, 16.4,2.6 Hz, 1H) | 34.7/34.8 | 114.1/114.4(9), 120.4/121.6(5), 141.7/142.0(10) | 3.16/ 3.16 (m, 1H) | 33.2/ 33.2 | 108.3/108.4(9), 118.3/118.3(5), 140.5/140.5(10) | 3.11 (dd, 16.7,2.6 Hz, 1H) | 34.9 | 114.4(9),121.6(5), 141.9(10) |
| 5 | 7.11/7.02 (d, 7.5 Hz, 1H) | 121.7/120.5 | 34.7/34.8(4), 114.1/114.4(9), 116.5(7) | 6.87/ 6.87 (m, 1H) | 118.3/ 118.3 | 33.2/33.2(4), 108.3/108.4(9) | 7.11 (d, 7.6 Hz, 1H) | 121.6 | 34.9(4), 114.4(9),116.5(7) |
| 6 | 7.60/7.53 (dd, 8.5,7.5 Hz, 1H) | 134.9/134.3 | 141.7/142.0(10), 158.2/158.8(8) | 7.53/ 7.53 (dd, 8.4,7.4 Hz, 1H) | 136.2/ 136.2 | 140.5/140.5(10), 160.8/160.8(8) | 7.60 (dd, 8.5,7.6 Hz, 1H) | 134.9 | 141.9(10), 158.8(8) |
| 7 | 7.33/7.19 (d, 8.5 Hz, 1H) | 116.5/114.4 | 120.5/121.7(5) | 6.90/ 6.90 (d, 8.4 Hz, 1H) | 115.3/ 115.3 | 118.3/118.3(5), 160.8/160.8(8) | 7.33 (d, 8.5 Hz, 1H) | 116.5 | 114.4(9),121.6(5), 158.8(8) |
| 8 | - | 158.8/158.2 | - | - | 160.8/ 160.8 | - | - | 158.8 | - |
| 9 | - | 114.4/114.1 | - | - | 108.3/ 108.4 | - | - | 114.4 | - |
| 10 | - | 142.0/141.7 | - | - | 140.5/ 140.5 | - | - | 141.9 | - |
| 11 | - | - | - | - | - | - | 3.78 (s, 3H) | 55.6 | 147.8(4') |
| 1' | - | 128.6/128.8 | - | - | 129.0/ 129.0 | - | - | 130.8 | - |
| 2' | 7.33/7.31 (m, 1H) | 128.2/128.0 | 78.4/79.0(3), 157.5/157.6(4') | 7.29/ 7.29 (m/ 1H) | 115.2/ 115.3 | 80.2/80.4(3), 121.5/121.7(6'), 145.0/145.1(3'), 147.1/147.2(4') | 6.94 (d, 2.1 Hz, 1H) | 113.9 | 117.5(6') |
| 3' | 6.81/6.78 (m, 1H) | 115.0/115.0 | 128.6/128.8(1'), 157.5/157.6(4') | - | 145.0/ 145.1 | - | - | 146.3 | - |
| 4' | - | 157.6/157.5 | - | - | 147.1/ 147.2 | - | - | 147.8 | - |
| 5' | 6.81/6.78 (m, 1H) | 115.0/115.0 | 128.6/128.8(1'), 157.5/157.6(4') | 6.86/ 6.86 (m, 1H) | 115.6/ 115.7 | 129.0/129.0(1'), 145.0/145.1(3') | 6.95 (d, 8.1 Hz, 1H) | 111.8 | 130.8(1'), 146.3(3') |
| 6' | 7.33/7.31 (m, 1H) | 128.2/128.0 | 78.4/79.0(3), 157.5/157.6(4') | 7.04/ 7.05 (m, 1H) | 121.5/ 121.7 | 80.2/80.4(3), 147.1/147.2(4') | 6.90 (dd, 8.1,2.1 Hz, 1H) | 117.5 | 78.8(3), 113.9(2'),147.8(4') |
| A1 | 4.86/4.95 (d, 7.6 Hz, 1H) | 103.3/100.3 | 158.2/158.8(8) | 4.70/ 4.71 (d, 7.5 Hz, 1H) | 101.9/ 102.3 | 145.0/145.1(3') | 4.86 (d, 7.2 Hz, 1H) | 103.2 | 158.8(8) |
| A2 | 3.35/3.35 (m, 1H) | 73.1/73.5 | - | 3.3/ 3.3 (m, 1H) | 73.2/ 73.2 | - | 3.3 (m, 1H) | 73.5 | - |
| A3 | 3.35/3.27 (m, 1H) | 75.6/76.5 | - | 3.3/ 3.3 (m, 1H) | 75.9/ 75.9 | - | 3.3 (m, 1H) | 75.6 | - |
| A4 | 3.19/3.19 (m, 1H) | 69.6/69.4 | 75.6/76.5(3) | 3.16/ 3.16 (m/ 1H) | 69.7/ 69.8 | - | 3.18 (m, 1H) | 69.6 | - |
| A5 | 3.35/3.35 (m, 1H) | 77.5/77.0 | - | 3.3/ 3.3 (m, 1H) | 77.0/ 77.2 | - | 3.39 (m, 1H) | 77.5 | 60.7(A6), 103.2(A1) |
| A6a | 3.75/3.71 (m, 1H) | 60.7/60.6 | 69.4/69.6(A4) | 3.71 (m, 1H) | 60.5/ 60.6 | - | 3.74 (m, 1H) | 60.7 | - |
| A6b | 3.49/3.49 (m, 1H) | 60.7/60.6 | - | 3.48 (m, 1H) | 60.5/ 60.6 | - | 3.51 (m, 1H) | 60.7 | 77.5(A5) |

* Compounds were obtained as position 3 diastereomers. Signals could not be unequivocally assigned.

Table A2: NMR assignments of hydrangenol-4'-O-glc (4) and phyllodulcin 3'-O-glc (5)

| No | hydrangenol-4'-O-glc (4) | | | phyllodulcin 3'-O-glc (5) | | |
|-----|---|-------------------------|-------------------------|---|-------------------------|---|
| | δ_H (Multiplicity, J, nH) [*] | δ_C [*] | HMBC | δ_H (Multiplicity, J, nH) [*] | δ_C [*] | HMBC |
| 1 | - | 169.0/169.0 | - | - | 169.1/169.1 | - |
| 3 | 5.71/ 5.71 (dd, 12.1,3.2 Hz, 1H) | 79.8/ 79.9 | 128.0(2'), 128.0(6') | 5.66/5.67 (dd, 11.8,3.2 Hz, 1H) | 80.0/80.0 | - |
| 4a | 3.38/ 3.38 (m, 1H) | 33.8/ 33.8 | 140.5(10) | 3.41/3.41 (m, 1H) | 33.6/33.5 | 80.0(3), 108.5(9), 117.9(5), 130.6(1'), 140.5(10) |
| 4b | 3.15/ 3.15 (m, 1H) | 33.8/ 33.8 | 108.6(9),140.5(10) | 3.15/3.15 (m, 1H) | 33.6/33.5 | 108.5(9), 117.9(5), 140.5(10) |
| 5 | 6.80/ 6.80 (d, 7.4 Hz, 1H) | 117.6/ 117.6 | 33.8(4), 108.6(9) | 6.83/6.83 (m, 1H) | 117.9/117.9 | 33.5/33.6(4), 108.5(9), 115.8(7) |
| 6 | 7.49/ 7.49 (dd, 8.4,7.3 Hz, 1H) | 136.2/ 136.2 | 140.5(10), 161.9(8) | 7.51/7.51 (6.8,7.3 Hz, 1H) | 136.3/136.3 | 140.5(10), 161.5(8) |
| 7 | 6.86/ 6.86 (d, 8.4 Hz, 1H) | 116.2/ 116.2 | 108.6(9),117.6(5) | 6.87/6.87 (d, 8.3 Hz, 1H) | 115.8/115.8 | 108.5(9),117.9(5) |
| 8 | - | 161.9/ 161.9 | - | - | 161.5/161.5 | - |
| 9 | - | 108.6/ 108.6 | - | - | 108.5/108.5 | - |
| 10 | - | 140.5/ 140.5 | - | - | 140.5/140.5 | - |
| 11 | - | 131.7/ 131.7 | - | 3.8/3.78 (s, 3H) | 55.7/55.7 | 149.2(4') |
| 1' | 7.45/ 7.45 (m, 1H) | 128.0/ 128.0 | - | - | 130.6/130.6 | - |
| 2' | 7.08/ 7.08 (m, 1H) | 116.2/ 116.2 | 79.8/79.9(3), 157.6(4') | 7.23/7.23 (m, 1H) | 114.2/114.2 | 80.0(3),120.2/120.6(6'), 146.3(3'), 149.2(4') |
| 3' | - | 157.6/ 157.6 | 131.7(1'),157.6(4') | - | 146.3/146.3 | - |
| 4' | 7.08 (m, 1H) | 116.2, 116.2 | - | - | 149.2/149.2 | - |
| 5' | 7.45 | 128.0, 128.0 | 131.7(1'),157.6(4') | 7.03/7.03 (d, 8.4 Hz, 1H) | 112.2/112.3 | 130.6(1'),146.3(3') |
| 6' | 4.90/ 4.90 (d, 7.5 Hz, 1H) | 100.2/ 100.2 | 79.8/79.9(3), 157.6(4') | 7.09/7.09 (m, 1H) | 120.6/120.2 | 80.0(3), 114.2(2'),149.2(4') |
| A1 | 3.24/ 3.24 (m, 1H) | 73.2/ 73.2 | 157.6(4') | 4.92/4.92 (d, 7.8 Hz, 1H) | 100.1/100.1 | 146.3(3') |
| A2 | 3.28/ 3.28 (m, 1H) | 76.6/ 76.6 | 76.6(A3), 100.2(A1) | 3.31/3.31 (m, 1H) | 73.2/73.2 | - |
| A3 | 3.15/ 3.15 (m, 1H) | 69.7/ 69.7 | 69.7(A4), 73.2(A2) | 3.31/3.31 (m, 1H) | 77.0/77.0 | - |
| A4 | 3.33/ 3.33 (m, 1H) | 77.1/ 77.1 | - | 3.15/3.15 (m, 1H) | 69.6/69.6 | - |
| A5 | 3.69/ 3.69 (m, 1H) | 60.7/ 60.7 | - | 3.31/3.31 (m, 1H) | 77.1/77.1 | - |
| A6a | 3.46/ 3.46 (m, 1H) | 60.7/ 60.7 | - | 3.67/3.67 (m, 1H) | 60.5/60.5 | 69.6(A4) |
| A6b | - | 169.0/169.0 | 77.1(A5) | 3.46/3.46 (m, 1H) | 60.5/60.5 | |

* Compounds were obtained as position 3 diastereomers. Signals could not be unequivocally assigned.

Table A3: NMR assignments of thunberginol C-8-O-glc (6), thunberginol E-6-O-glc (7) and thunberginol D-6-O-glc (8)

| No | thunberginol C-8-O-glc (6) | | | thunberginol E-6-O-glc (7) | | | thunberginol D-6-O-glc (8) | | |
|-----|----------------------------------|-------------|--|----------------------------------|------------|--|----------------------------------|--------------|--|
| | δ_H (Multiplicity, J, nH) | δ_C | HMBC | δ_H (Multiplicity, J, nH) | δ_C | HMBC | δ_H (Multiplicity, J, nH) | δ_C | HMBC |
| 1 | - | 161.6/161.6 | - | - | 169.2 | - | - | 169.1/169.2 | - |
| 3 | 5.38/5.33 (dd, 11.2, 2.9 Hz, 1H) | 78.6/77.8 | - | 5.60 (dd, 11.4, 3.3 Hz, 1H) | 79.7 | 113.9(2'), 117.6(6'), 130.8(1'), 142.1(10) | 5.53/5.55 (dd, 11.9, 3.3 Hz, 1H) | 79.9/79.9 | 114.1(2'), 117.7(6'), 128.9/129.0(1'), 142.0(10) |
| 4a | 3.21/3.21 (m, 1H) | 35.2/35.1 | - | 3.29 (m, 1H) | 33.8 | - | 3.34/ 3.34 (m, 1H) | 33.7/33.7 | - |
| 4b | 2.99/3.00 (m, 1H) | 35.2/35.1 | 105.8/105.9(9), 107.9/108.9(5) 143.5/143.9(10) | 3.12 (dd, 16.8, 3.3 Hz, 1H) | 33.8 | 102.6(9), 107.3(5), 142.1(10) | 3.09/ 3.09 (m, 1H) | 33.7/33.7 | 102.5(9), 107.2/107.3(5), 142.0(10) |
| 5 | 6.49/6.41 (m, 1H) | 108.9/107.9 | 35.1/35.2(4), 102.3(7), 105.8/105.9(9) | 6.55 (d, 2.3 Hz, 1H) | 107.3 | 33.8(4), 102.6(9) | 6.55/6.55 (m, 1H) | 107.2/ 107.3 | 33.7(4), 102.5/ 102.5(9) |
| 6 | - | 163.3/162.8 | - | - | 163.3 | - | - | 162.9/162.9 | - |
| 7 | 6.72/6.57 (m, 1H) | 104.1/102.3 | 105.8/105.8(9), 107.9/108.9(5), 160.7/161.5(8), 162.8/163.3(6) | 6.51 (d, 2.3 Hz, 1H) | 101.8 | 102.6(9), 107.3(5), 163.3(8) | 6.51/ 6.53 (m, 1H) | 101.6/101.6 | 102.5/ 102.5(9), 107.2/ 107.3(5) |
| 8 | - | 161.5/160.7 | - | - | 163.0 | - | - | 163.2/163.2 | - |
| 9 | - | 105.9/105.8 | - | - | 102.6 | - | - | 102.5/ 102.5 | - |
| 10 | - | 143.9/143.5 | - | - | 142.1 | - | - | 142.0/142.0 | - |
| 11 | - | - | - | 3.79 (s, 3H) | 55.7 | 147.9(4') | - | - | - |
| 1' | - | 128.9/129.2 | - | - | 130.8 | - | - | 128.9/ 129.0 | - |
| 2' | 7.31/7.27 (m, 1H) | 128.2/128.0 | 77.8/78.6(3), 157.5(157.6(4')) | 6.92 (d, 2.1 Hz, 1H) | 113.9 | 79.7(3), 117.6(6'), 147.9(4') | 6.88/6.88 (m, 1H) | 114.1/114.1 | 79.9(3), 117.7(6'), 145.6(4') |
| 3' | 6.80/6.77 (m, 1H) | 115.1/115.1 | 128.9/129.2(1'), 157.5/157.6(4') | - | 146.5 | - | - | 145.1/145.1 | 79.9(3), 117.7(6'), 145.6(4') |
| 4' | - | 157.6/157.5 | - | - | 147.9 | - | - | 145.6/145.6 | - |
| 5' | 6.80/6.77 (m, 1H) | 115.1/115.1 | 128.9/129.2(1'), 157.5/157.6(4') | 6.95 (d, 8.4 Hz, 1H) | 112 | 130.8(1'), 146.5(3') | 6.75/6.75 (m, 1H) | 115.3/115.3 | - |
| 6' | 7.31/7.27 (m, 1H) | 128.2/128.0 | 77.8/78.6(3), 157.5(157.6(4')) | 6.88 (dd, 8.4, 2.1 Hz, 1H) | 117.6 | 79.7(3), 113.9(2'), 147.9(4') | 6.75/6.75 (m, 1H) | 117.7/117.7 | - |
| A1 | 4.74/4.82 (d, 7.4 Hz, 1H) | 103.9/101.0 | 160.7/161.5(8) | 4.98 (d, 7.5 Hz, 1H) | 99.8 | 163.3(6) | 4.97/4.99 (d, 7.8 Hz, 1H) | 99.6/ 99.5 | 163.2 (6) |
| A2 | 3.34/3.34 (m, 1H) | 73.7/73.2 | - | 3.23 (m, 1H) | 73.1 | 99.8(A1) | 3.23/3.23 (m, 1H) | 73.0/73.0 | 76.4(A3), 99.5/99.6(A1) |
| A3 | 3.34/3.34 (m, 1H) | 75.5/76.5 | - | 3.29 (m, 1H) | 76.5 | - | 3.34/3.34 (m, 1H) | 76.4/76.4 | - |
| A4 | 3.21/3.21 (m, 1H) | 69.6/69.4 | - | 3.17 (m, 1H) | 69.5 | - | 3.17/3.17 (m, 1H) | 69.4/69.4 | 60.4(A6), 76.4(A3) |
| A5 | 3.34/3.34 (m, 1H) | 77.6/76.5 | - | 3.39 (m, 1H) | 77.2 | - | 3.34/3.34 (m, 1H) | 77.0/ 77.0 | - |
| A6a | 3.75/3.71 (m, 1H) | 60.7/60.6 | - | 3.7 (m, 1H) | 60.5 | - | 3.68/3.69 (m, 1H) | 60.4/60.4 | 69.4(A4), |
| A6b | 3.54/3.54 (m, 1H) | 60.7/60.6 | - | 3.46 (m, 1H) | 60.5 | 77.2(A5) | 3.45/3.45 (m, 1H) | 60.4/60.4 | 77.0(A5) |

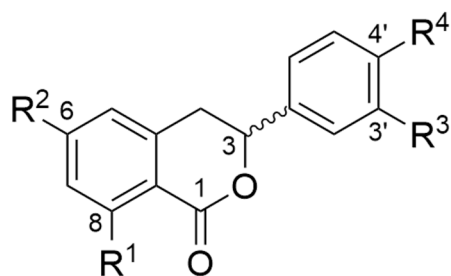
* Compounds were obtained as position 3 diastereomers. Signals could not be unequivocally assigned.

Table A4: NMR assignments of thunberginol C (9), thunberginol E (10) and thunberginol G (11)

| | thunberginol C (9) | | | thunberginol E (10) | | | thunberginol G (11) | | |
|----|----------------------------------|------------|---------------------------------------|----------------------------------|------------|--|----------------------------------|------------|-------------------------------|
| No | δ_H (Multiplicity, J, nH) | δ_C | HMBC | δ_H (Multiplicity, J, nH) | δ_C | HMBC | δ_H (Multiplicity, J, nH) | δ_C | HMBC |
| 1 | - | 169.6 | - | - | 169.4 | - | - | 169.4 | - |
| 3 | 5.54 (dd, 12.1,3.2 Hz, 1H) | 79.9 | 128.3(2'), 128.3(6'),142.5(10) | 5.52 (dd, 11.7,3.3 Hz, 1H) | 79.5 | 113.9(2'), 117.5(6'), 131.1(1'), 142.1(10) | 5.53 (dd, 12.0,3.2 Hz, 1H) | 80.5 | 114.3(2'),117.9(6'),129.1(1') |
| 4a | 3.27 (dd, 16.6,12.2 Hz, 1H) | 33.8 | 79.9(3), 100.4(9),107.0(5), 142.5(10) | 3.02 (dd, 16.8,3.3Hz, 1H) | 33.8 | 79.9(3), 142.1(10) | 3.26 (m, 1H) | 33.6 | 80.5(3),140.6(10) |
| 4b | 3.02 (dd, 16.6,3.1 Hz, 1H) | 33.8 | 100.4(9),107.0(5), 142.5(10) | 3.2 (dd, 16.8,11.7 Hz, 1H) | 33.8 | 99.7(9), 107.3(5), 142.1(10) | 3.06 (dd, 16.6,3.2 Hz, 1H) | 33.6 | 108.5(9),118.4(5),140.6(10) |
| 5 | 6.30 (d, 1.8 Hz, 1H) | 107.0 | 33.8(4), 100.4(9), 101.0(7), 164.6(6) | 6.27 (d, 2.2 Hz, 1H) | 107.3 | 33.8(4), 99.7(9), 101.1(7) | 6.80 (d, 7.4 Hz, 1H) | 118.4 | 33.6(4),108.5(9),136.3(6) |
| 6 | - | 164.6 | - | - | 165.7 | - | 7.45 (dd, 8.4,7.4 Hz, 1H) | 136.3 | 140.6(10),160.9(8) |
| 7 | 6.24 (d, 2.2 Hz, 1H) | 101.0 | 100.4(9), 107.0(5) | 6.19 (d, 2.2 Hz, 1H) | 101.1 | 107.3(5), 163.5(8),165.7(6) | 6.82 (d, 8.4 Hz, 1H) | 115.4 | 118.4(5) |
| 8 | - | 163.5 | - | - | 163.5 | - | - | 160.9 | - |
| 9 | - | 100.4 | - | - | 99.7 | - | - | 108.5 | - |
| 10 | - | 142.5 | - | - | 142.1 | - | - | 140.6 | - |
| 11 | - | - | - | 3.78 (s, 3H) | 55.6 | 147.9(4') | - | - | - |
| 1' | - | 128.7 | - | - | 131.1 | - | - | 129.1 | - |
| 2' | 7.31 (m, 1H) | 128.3 | 79.9(3), 157.8(4') | 6.92 (d, 2.1 Hz, 1H) | 113.9 | 117.5(6'), 147.9(4') | 6.82 (m, 1H) | 114.3 | 80.5(3) |
| 3' | 6.80 (m, 1H) | 115.2 | 128.7(1') | - | 146.5 | - | - | 145.2 | - |
| 4' | - | 157.8 | - | - | 147.9 | - | - | 145.8 | - |
| 5' | 6.80 (m, 1H) | 115.2 | 128.7(1') | 6.94 (d, 8.3 Hz, 1H) | 112.0 | 131.1(1'), 146.5(3') | 6.69 (m, 1H) | 115.4 | |
| 6' | 7.31 (m, 1H) | 128.3 | 79.9(3), 157.8(4') | 6.87 (dd, 8.3,2.1 Hz, 1H) | 117.5 | 79.5(3), 113.9(2'), 147.9(4') | 6.69 (m, 1H) | 117.9 | |

Table A5: NMR assignments of hydrangenol (12) and phyllodulcin (13)

| | hydrangenol (12) | | | phyllodulcin (13) | | |
|----|----------------------------------|------------|----------------------------------|----------------------------------|------------|--|
| No | δ_H (Multiplicity, J, nH) | δ_C | HMBC | δ_H (Multiplicity, J, nH) | δ_C | HMBC |
| 1 | - | 169.3 | - | - | 169.3 | - |
| 3 | 5.66 (dd, 12.4,3.1 Hz, 1H) | 80.4 | 128.2(2'), 128.2(6'), 140.5(10)- | 5.65 (dd, 11.9,3.2 Hz, 1H) | 80.2 | 114.0(2'), 117.6(6'), 130.8(1'), 140.5(10) |
| 4a | 3.40 (dd, 16.6,12.4 Hz, 1H) | 33.4 | 80.4(3), 140.5(10) | 3.34 (m, 1H) | 33.6 | 80.2(3),140.5(10) |
| 4b | 3.13 (dd, 16.6,3.1 Hz, 1H) | 33.4 | 108.4(9), 118.3(5), 140.5(10) | 3.15 (dd, 16.6,3.2 Hz, 1H) | 33.6 | 108.5(9), 118.4(5), 140.5(10) |
| 5 | 6.87 (d, 7.4 Hz, 1H) | 118.3 | 33.4(4), 108.4(9) | 6.87 (m, 1H) | 118.4 | 33.6(4),108.5(9), 115.5(7) |
| 6 | 7.52 (dd, 8.4,7.4 Hz, 1H) | 136.2 | 140.5(10),160.9(8) | 7.52 (dd, 8.4,7.4 Hz, 1H) | 136.3 | 140.5(10), 160.9(8) |
| 7 | 6.90 (d, 8.4 Hz, 1H) | 115.3 | 108.4(9), 118.3(5), 160.9(8) | 6.90 (m, 1H) | 115.5 | 108.5(9), 118.4(5) |
| 8 | - | 160.9 | - | - | 160.9 | - |
| 9 | - | 108.4 | - | - | 108.5 | - |
| 10 | - | 140.5 | - | - | 140.5 | - |
| 11 | - | - | - | 3.78 (s, 3H) | 55.6 | 148.0(4') |
| 1' | - | 128.4 | - | - | 130.8 | - |
| 2' | 7.34 (m, 1H) | 128.2 | 80.4(3), 157.7(4') | 6.94 (m, 1H) | 114.0 | 80.2(3),117.6(6') |
| 3' | 6.81 (m, 1H) | 115.1 | 128.4(1'), 157.7(4') | - | 146.5 | - |
| 4' | - | 157.7 | - | - | 148.0 | - |
| 5' | 6.81 (m, 1H) | 115.1 | 128.4(1'), 157.7(4') | 6.95 (m, 1H) | 112.0 | 130.8(1'), 146.5(3') |
| 6' | 7.34 (m, 1H) | 128.2 | 80.4(3), 157.7(4') | 6.89 (m, 1H) | 117.6 | 80.2(3), 114.0(2'), 148.0(4') |



Hydrangenol-8-O-Glc (**1**) R1: O- β -Glc, R2: H, R3: H, R4: OH
 Thunberginol G-3'-O-Glc (**2**) R1: OH, R2: H, R3: O- β -Glc, R4: OH
 Phyllodulcin-8-O-Glc (**3**) R1: O- β -Glc, R2: H, R3: OH, R4: OMe
 Hydrangenol-4'-O-Glc (**4**) R1: OH, R2: H, R3: H, R4: O- β -Glc
 Phyllodulcin-3'-O-Glc (**5**) R1: OH, R2: H, R3: O- β -Glc, R4: OMe
 Thunberginol C-8-O-Glc (**6**) R1: O- β -Glc, R2: OH, R3: H, R4: OH
 Thunberginol E-6-O-Glc (**7**) R1: OH, R2: O- β -Glc, R3: OH, R4: OMe
 Thunberginol D-6-O-Glc (**8**) R1: OH, R2: O- β -Glc, R3: OH, R4: OH
 Thunberginol C (**9**) R1: OH, R2: OH, R3: H, R4: OH
 Thunberginol E (**10**) R1: OH, R2: OH, R3: OH, R4: OMe
 Thunberginol G (**11**) R1: OH, R2: H, R3: OH, R4: OH
 Hydrangenol (**12**) R1: OH, R2: H, R3: H, R4: OH
 Phyllodulcin (**13**) R1: OH, R2: H, R3: OH, R4: OMe

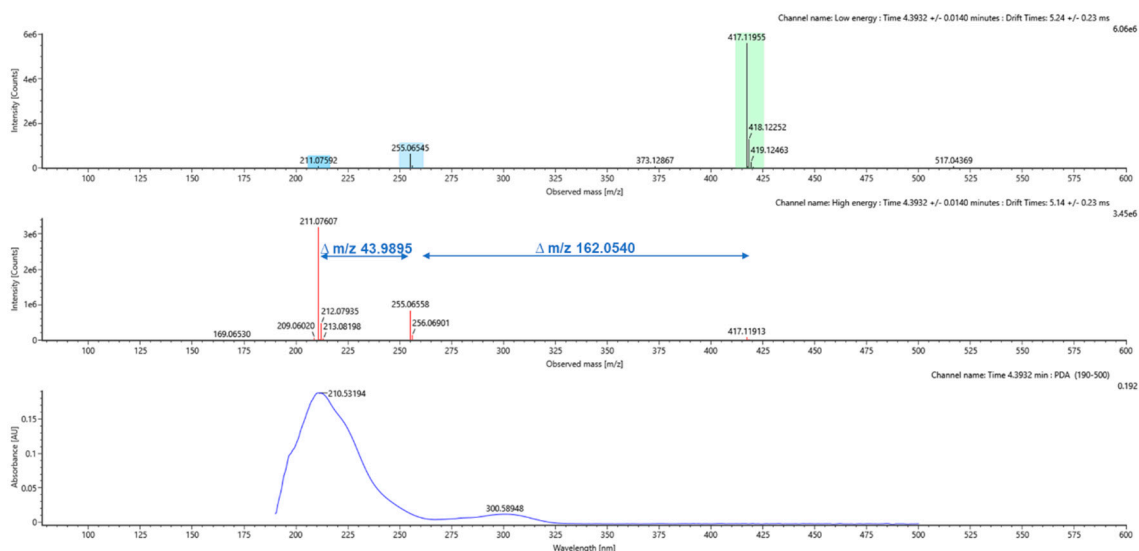


Figure A1: mass and UV-spectra of hydrangenol 8-O-glc (**1**)

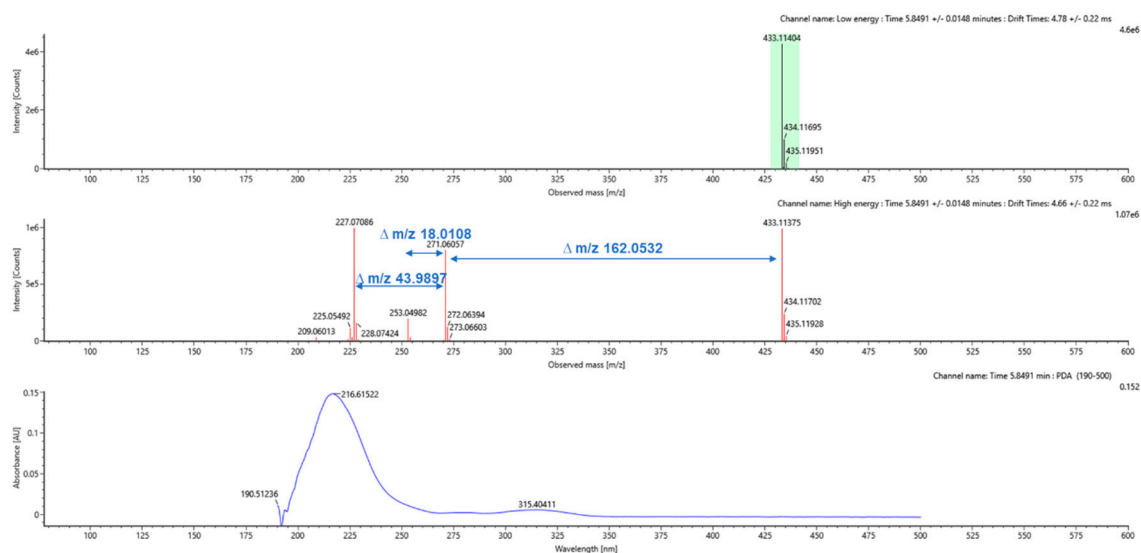


Figure A2: mass and UV-spectra of thunberginol G-3'-O-glc (2)

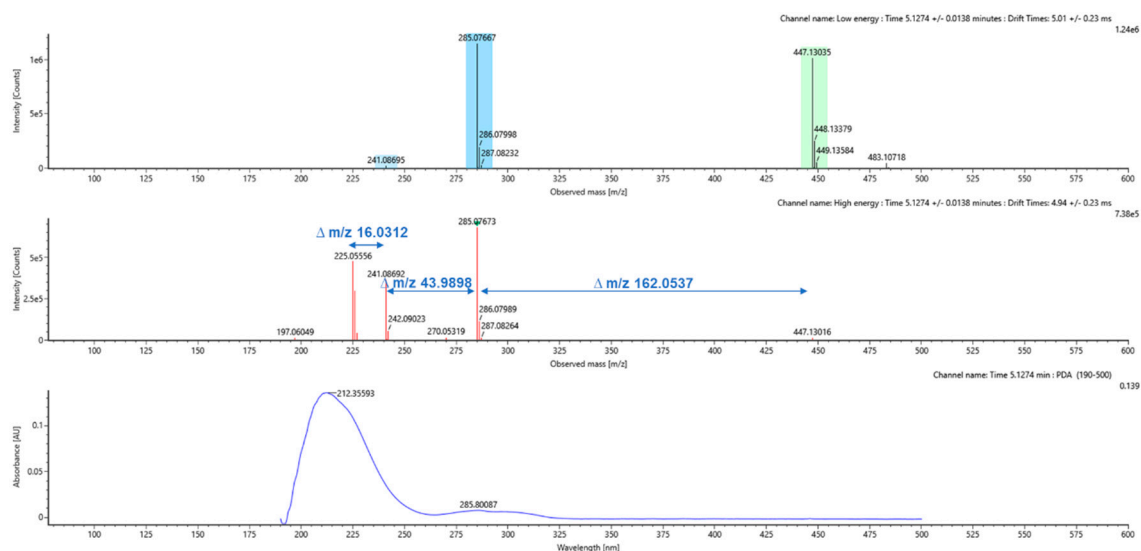


Figure A3: mass and UV-spectra of phyllodulcin 8-O-glc (3)

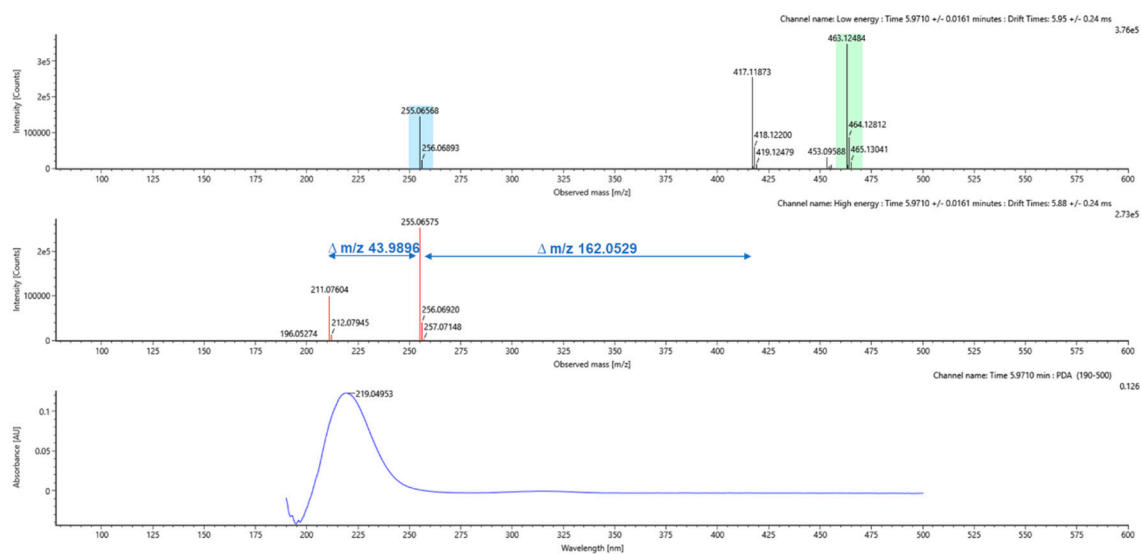


Figure A4: mass and UV-spectra of hydrangenol 4'-O-glc (4)

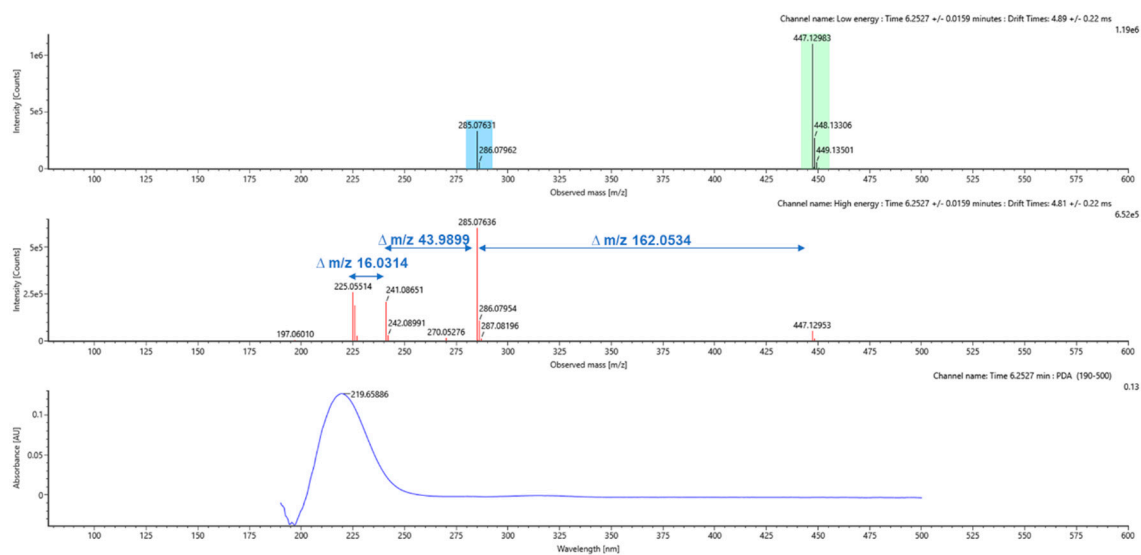


Figure A5: mass and UV-spectra of phyllodulcin 3'-O-glc (5)

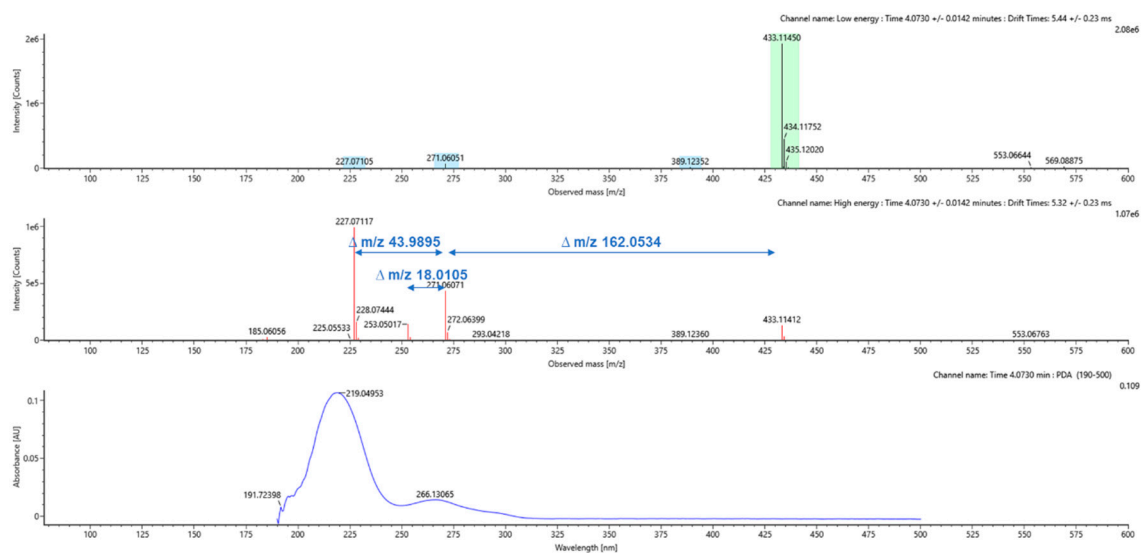


Figure A6: mass and UV-spectra of thunberginol C-8-O-glc (6)

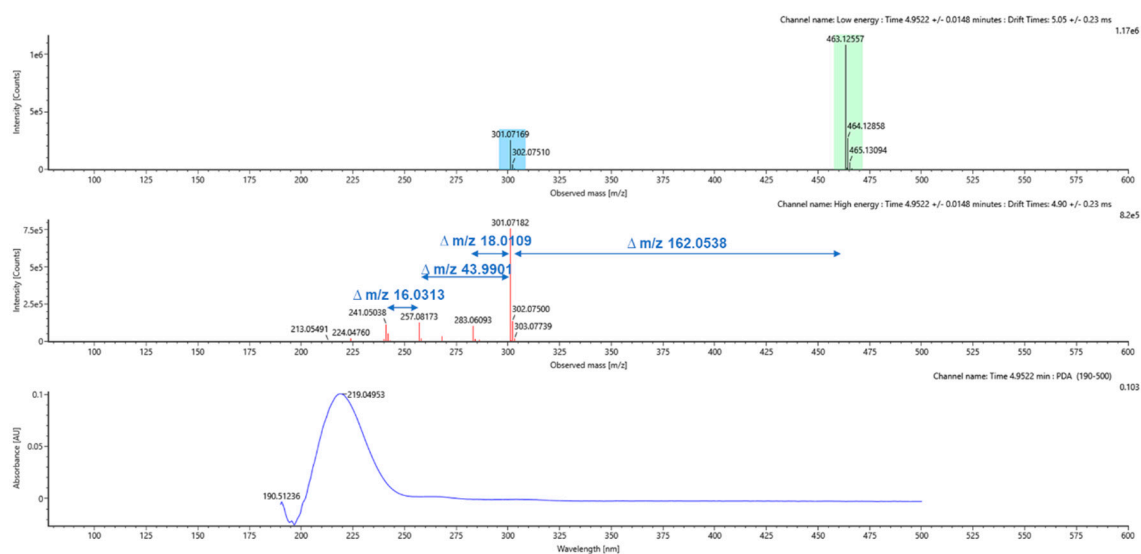


Figure A7: mass and UV-spectra of thunberginol E-6-O-glc (7)

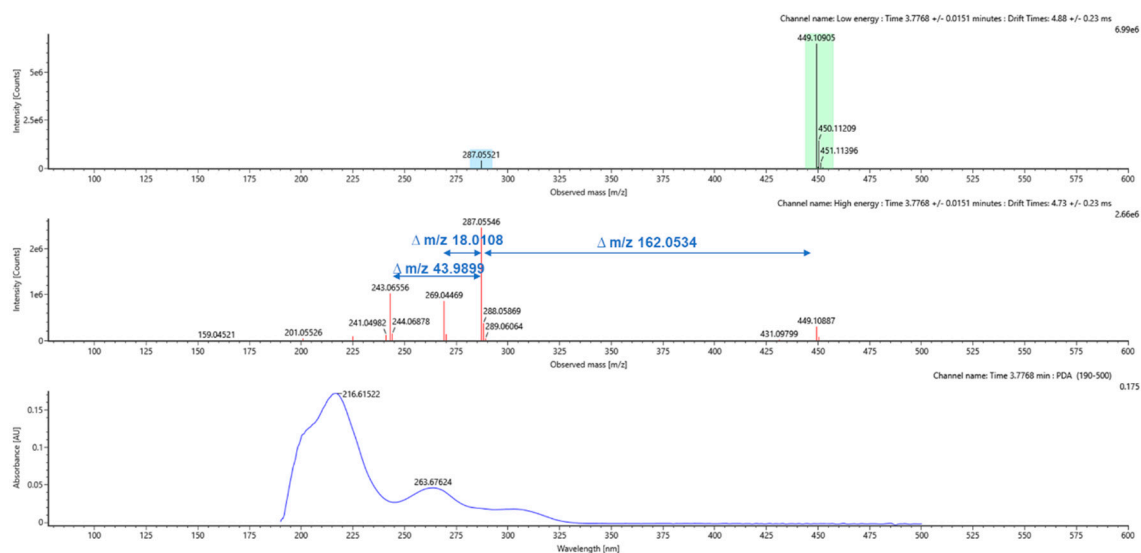


Figure A8: mass and UV-spectra of thunberginol D-6-O-glc (8)

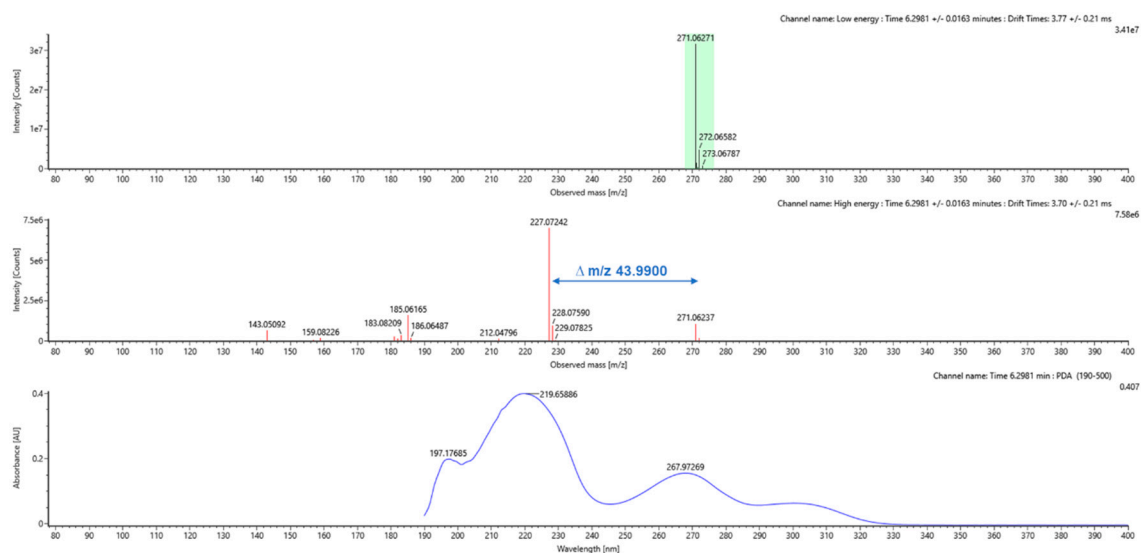


Figure A9: mass and UV spectra of thunberginol C (9)

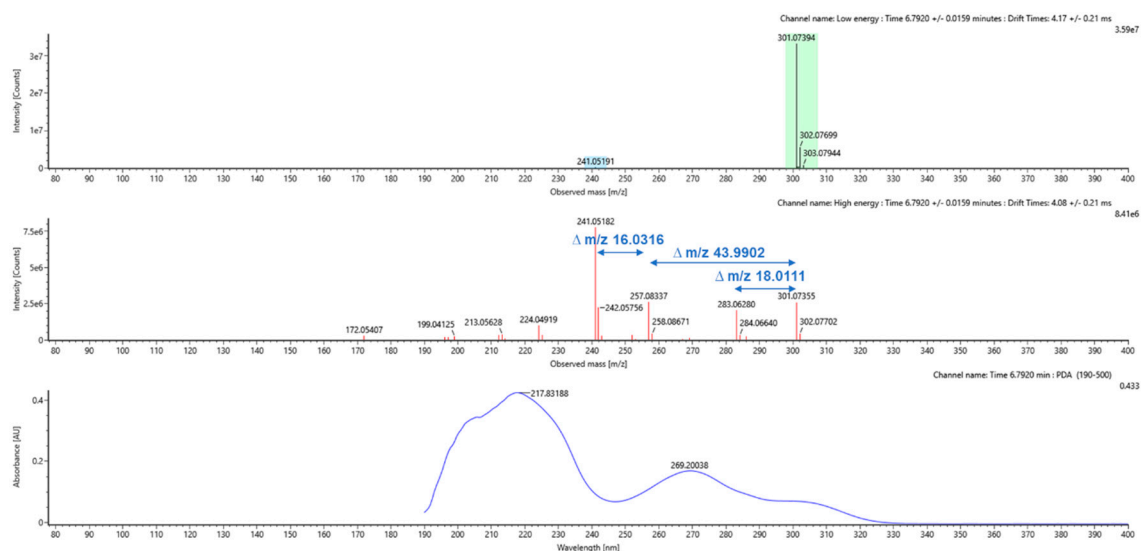


Figure A10: mass and UV spectra of thunberginol E (10)

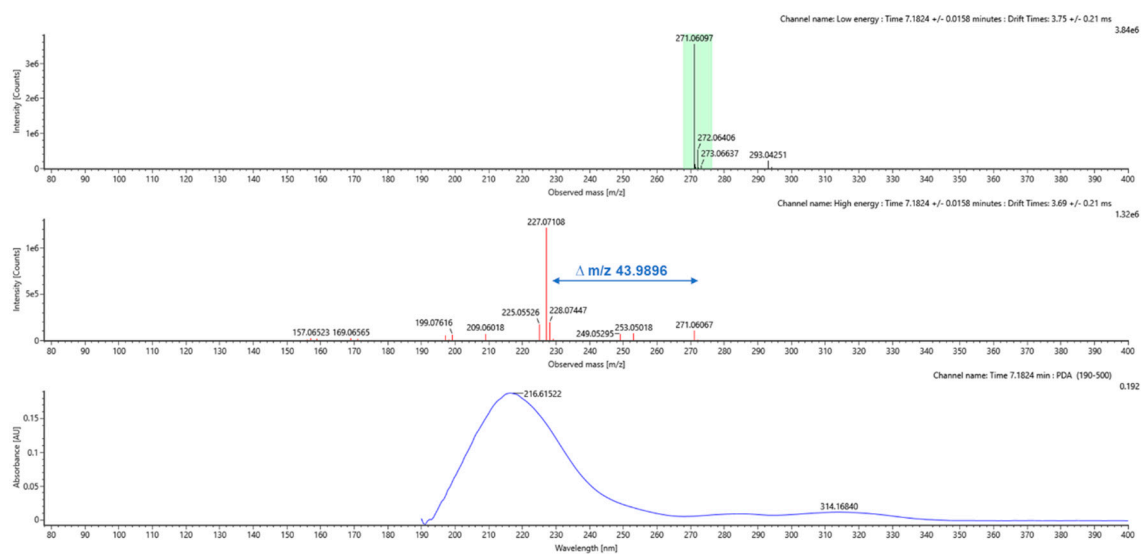


Figure A11: mass and UV-spectra of thunberginol G (11)

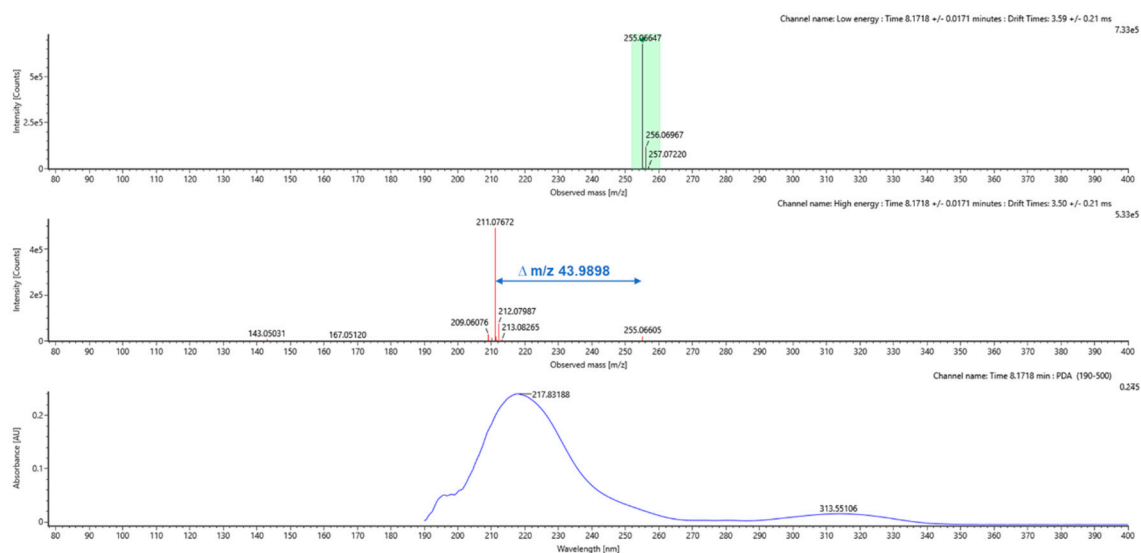


Figure A12: mass and UV-spectra of hydrangenol (12)

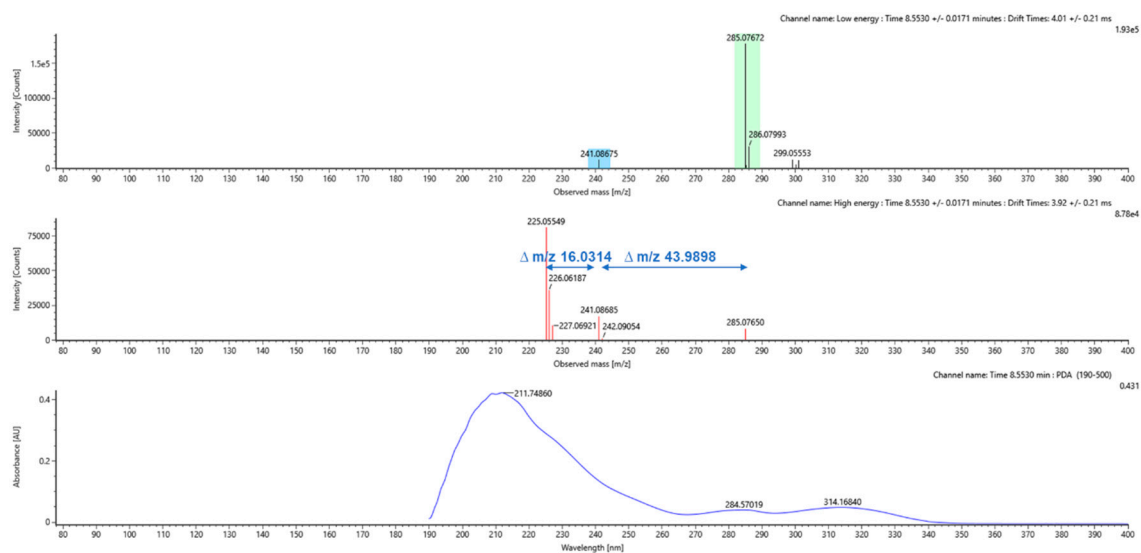


Figure A13: mass and UV-spectra of phyllodulcin (13)