

SUPPORTING INFORMATION

α -Amylase and α -Glucosidase Inhibitory Activities of Chemical Constituents from *Wedelia chinensis* (Osbeck.) Merr. Leaves

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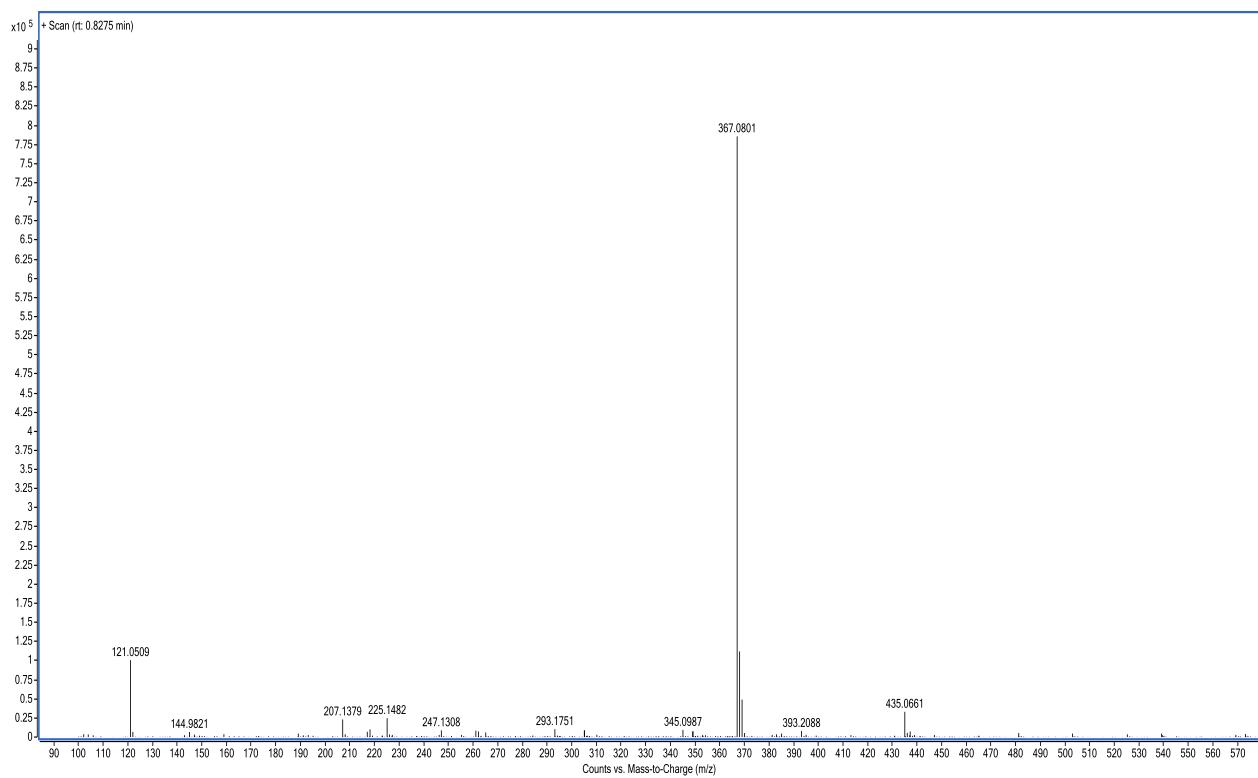


Figure S1. HRESIMS spectrum (MeOH) of compound **1**.

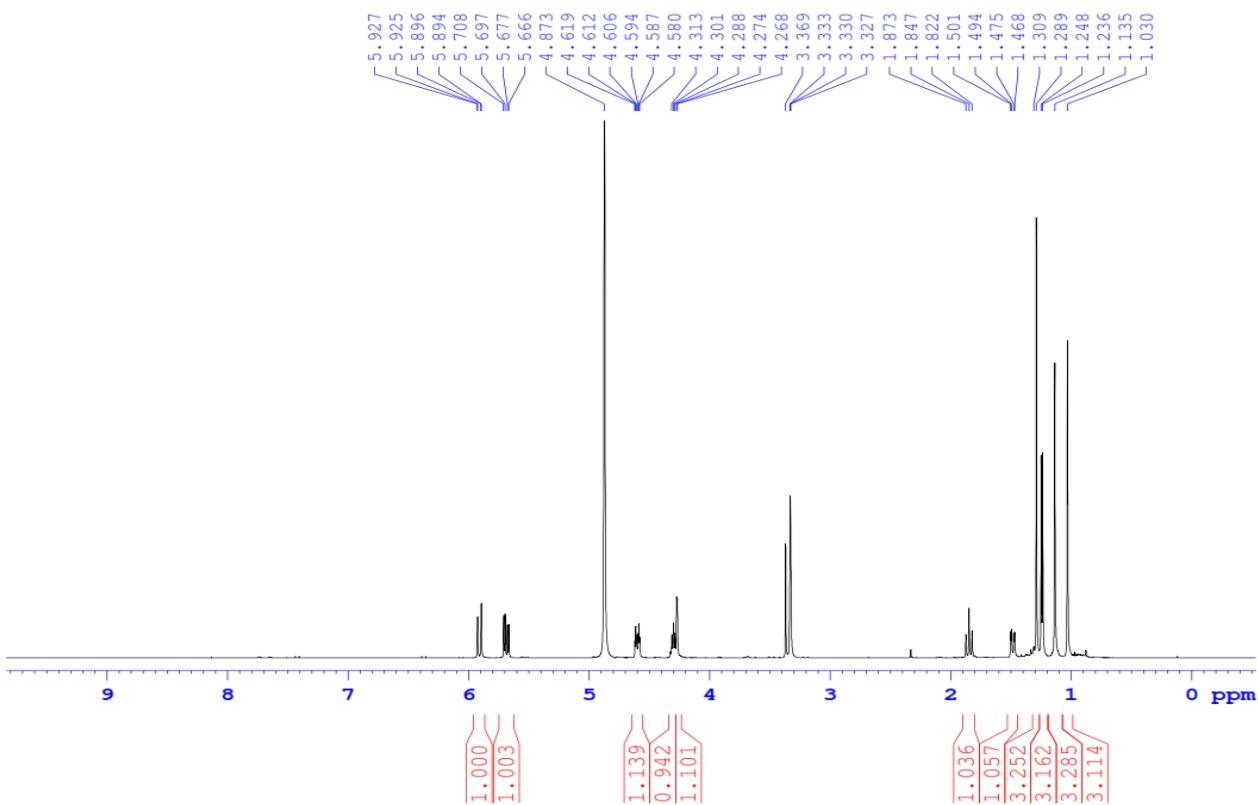


Figure S2. ¹H NMR spectrum (CD₃OD, 500 MHz) of compound **1**.

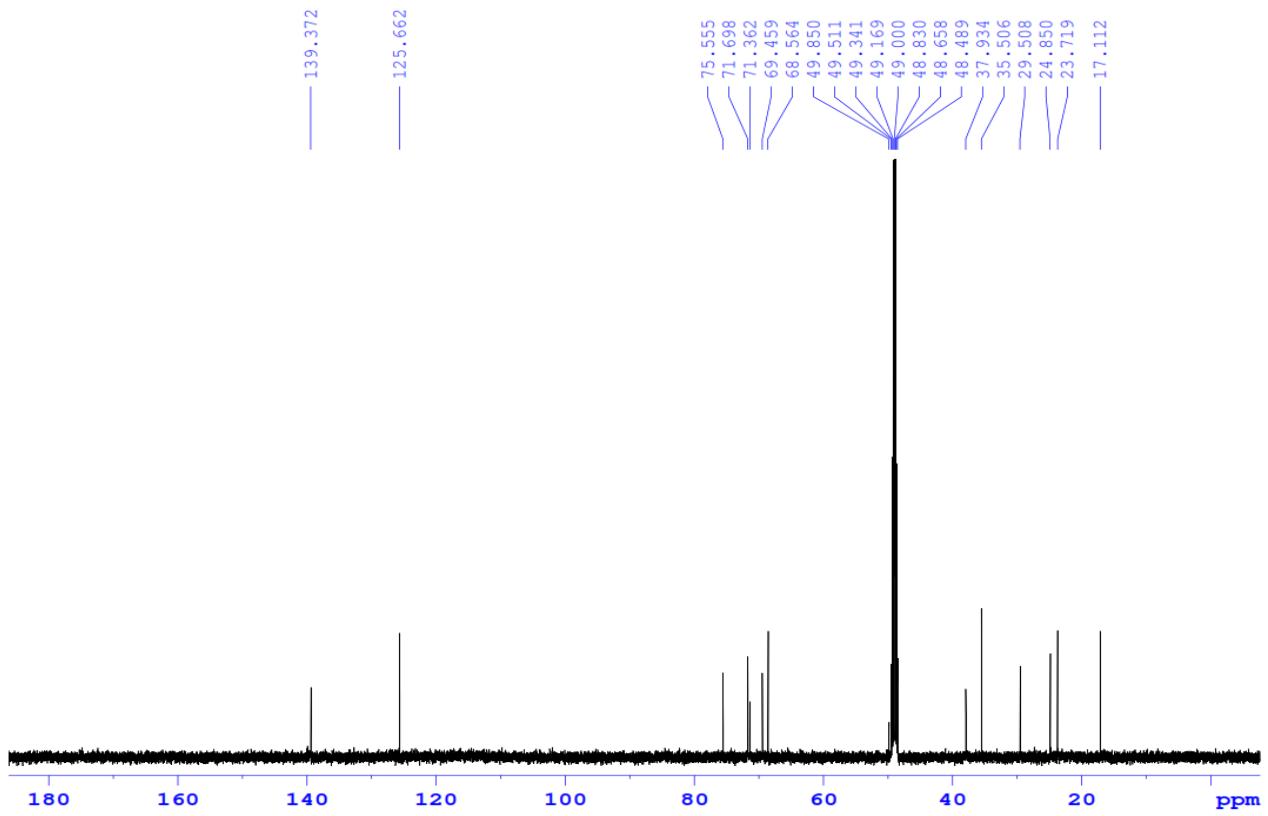
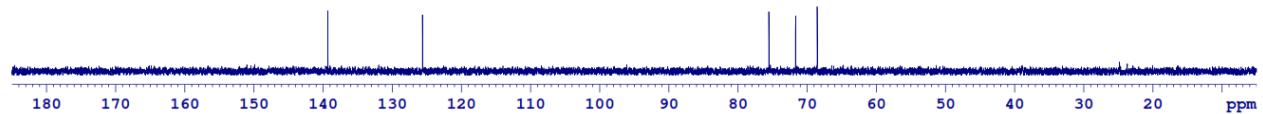
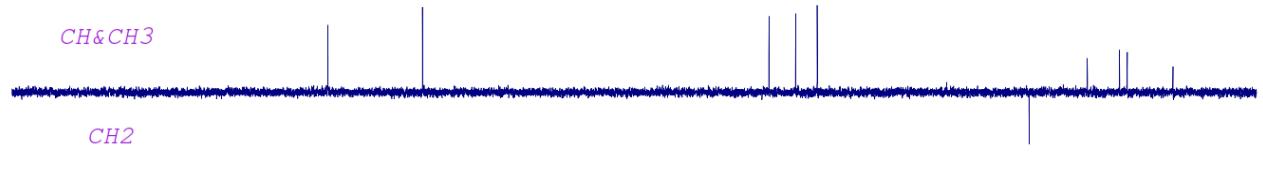


Figure S3. ¹³C NMR spectrum (CD₃OD, 125 MHz) of compound 1.

DEPT90



DEPT135



CH&CH₃

CH₂

C13CPD

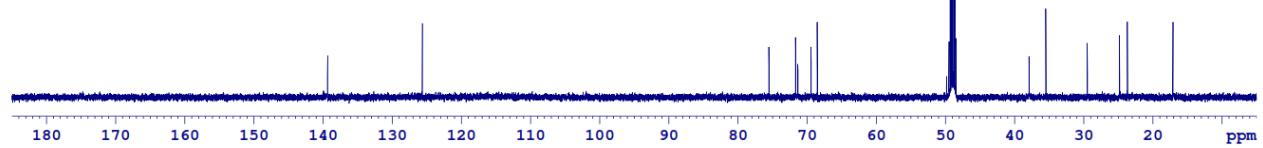


Figure S4. DEPT spectrum (CD₃OD, 125 MHz) of compound 1.

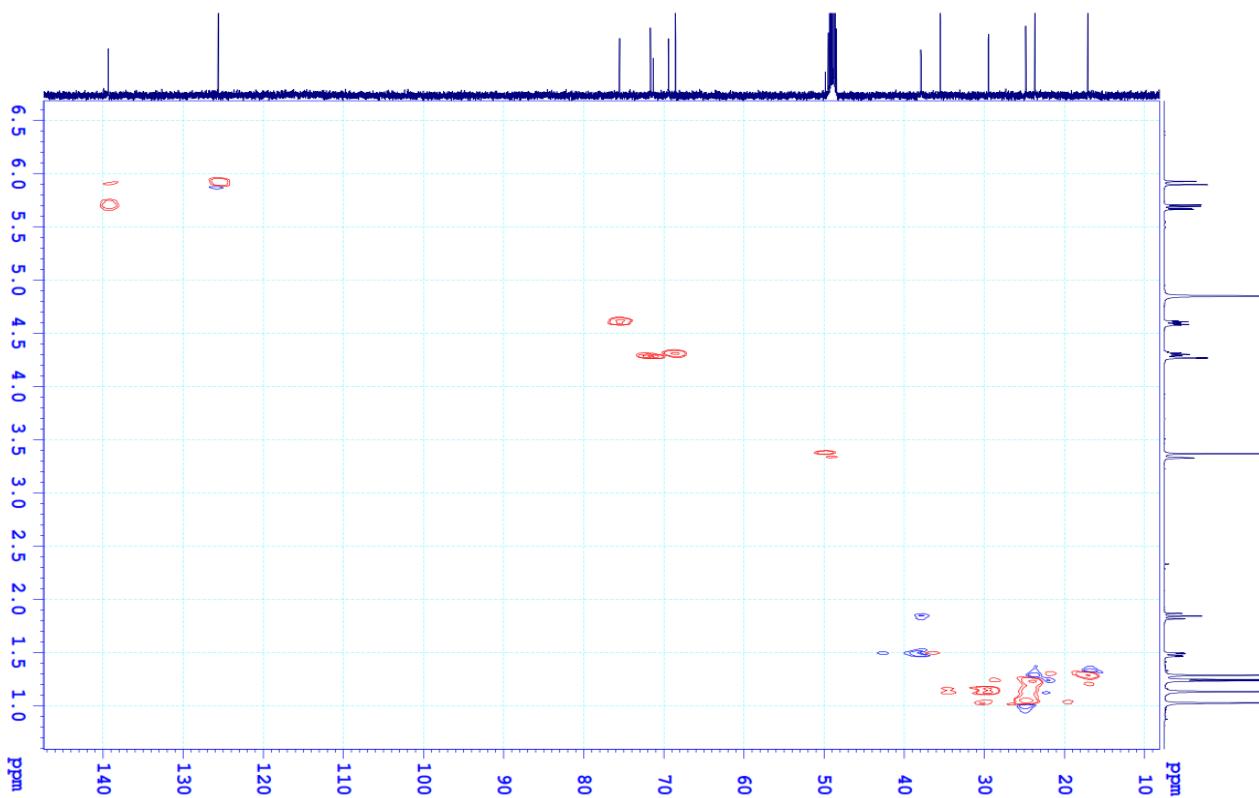


Figure S5. HMQC spectrum (CD_3OD , 500 MHz) of compound **1**.

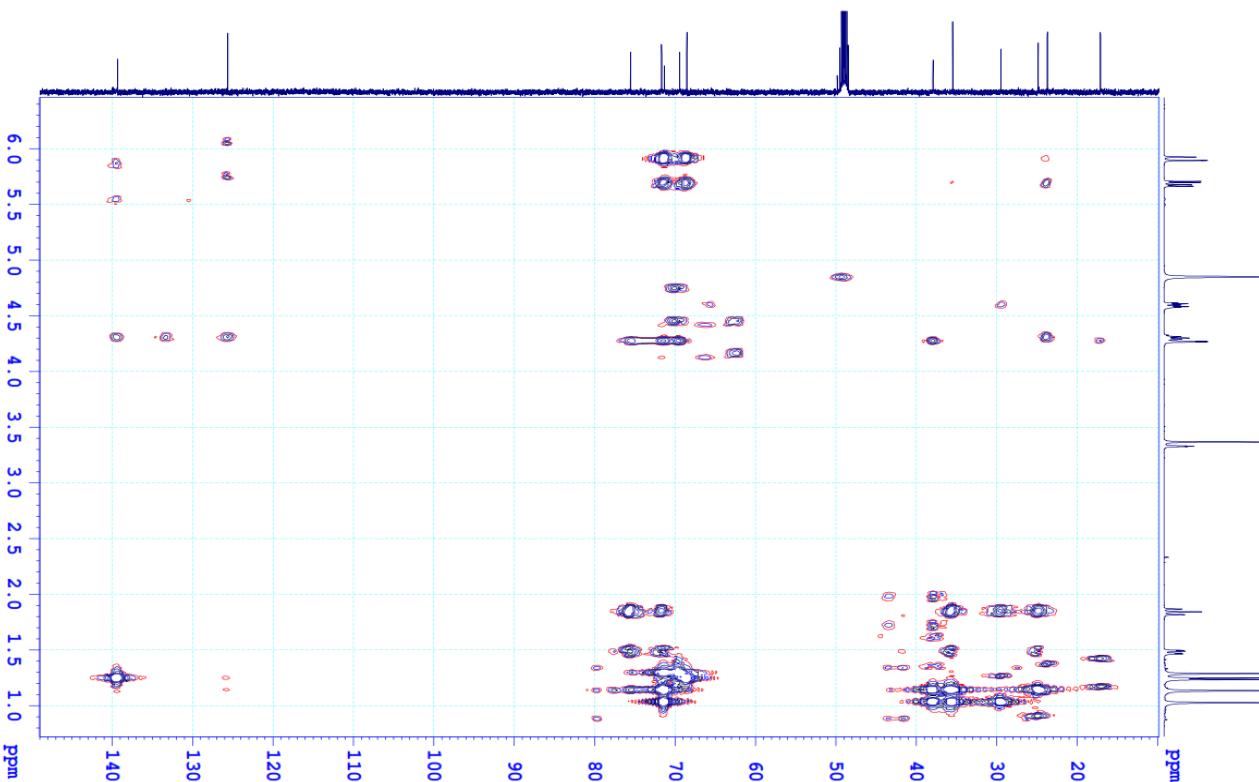


Figure S6. HMBC spectrum (CD_3OD , 500 MHz) of compound **1**.

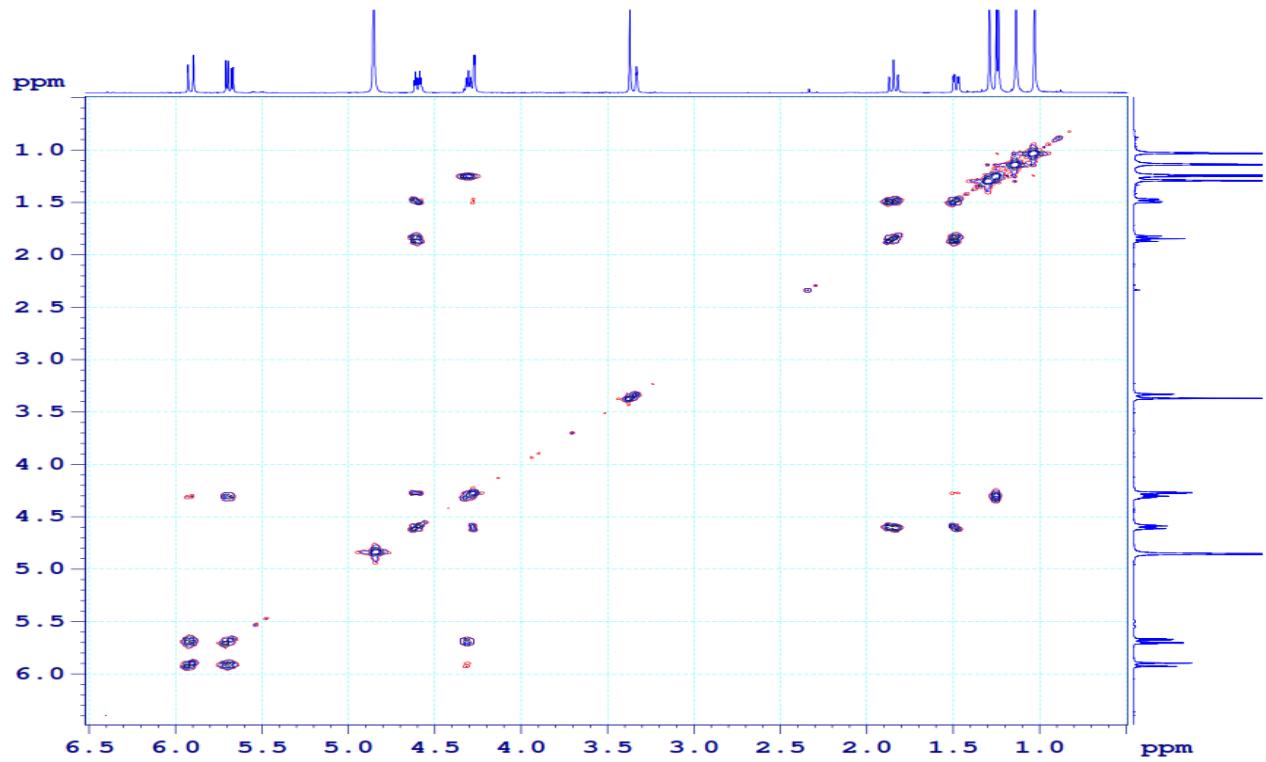


Figure S7. COSY spectrum (CD_3OD , 500 MHz) of compound 1.

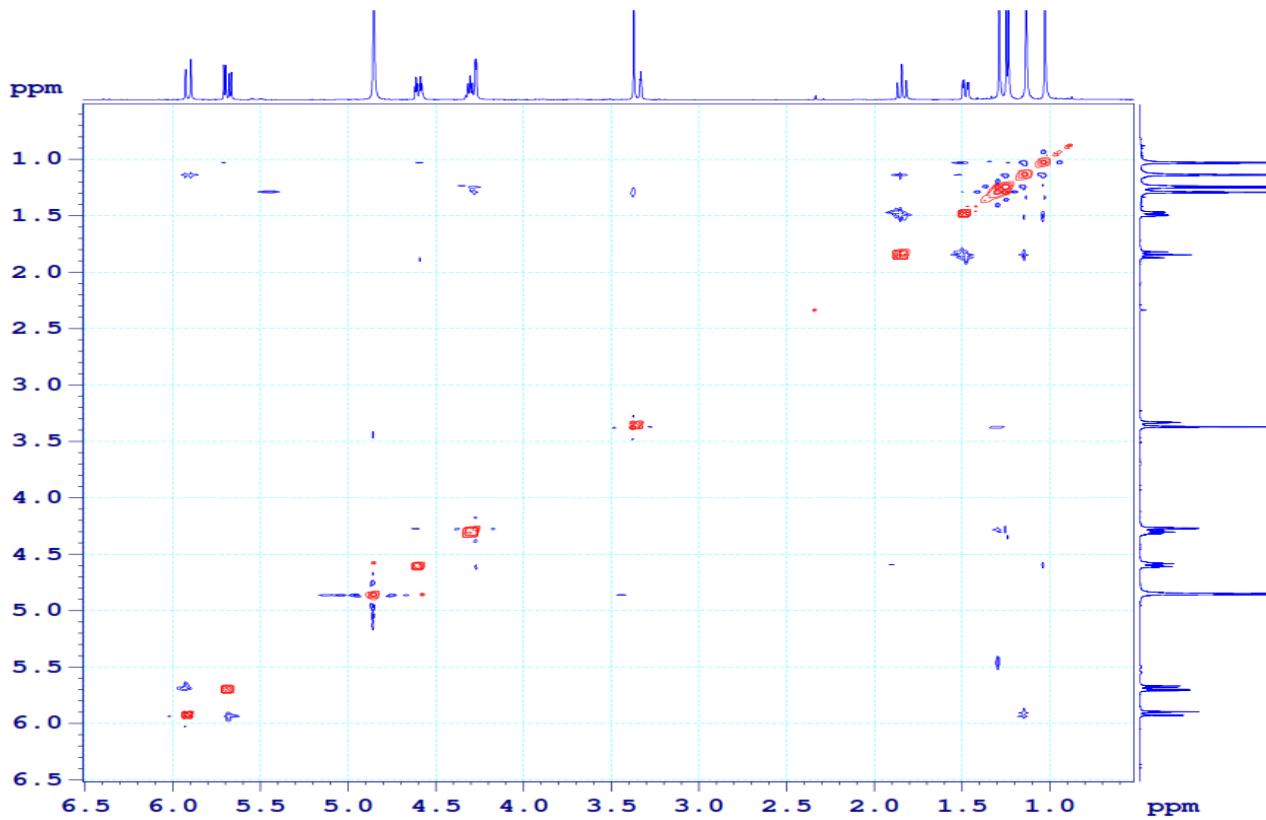


Figure S8. NOESY spectrum (CD_3OD , 500 MHz) of compound 1.

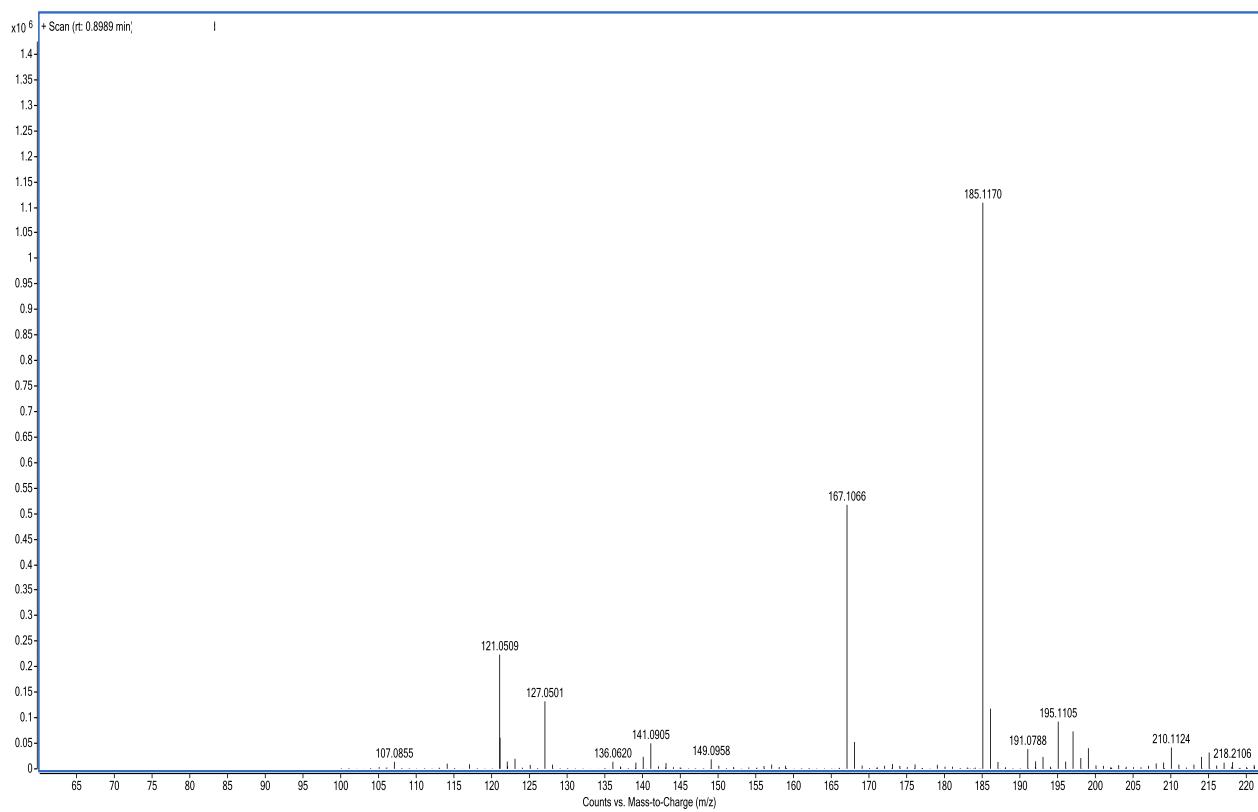


Figure S9. HRESIMS spectrum (MeOH) of compound **2**.

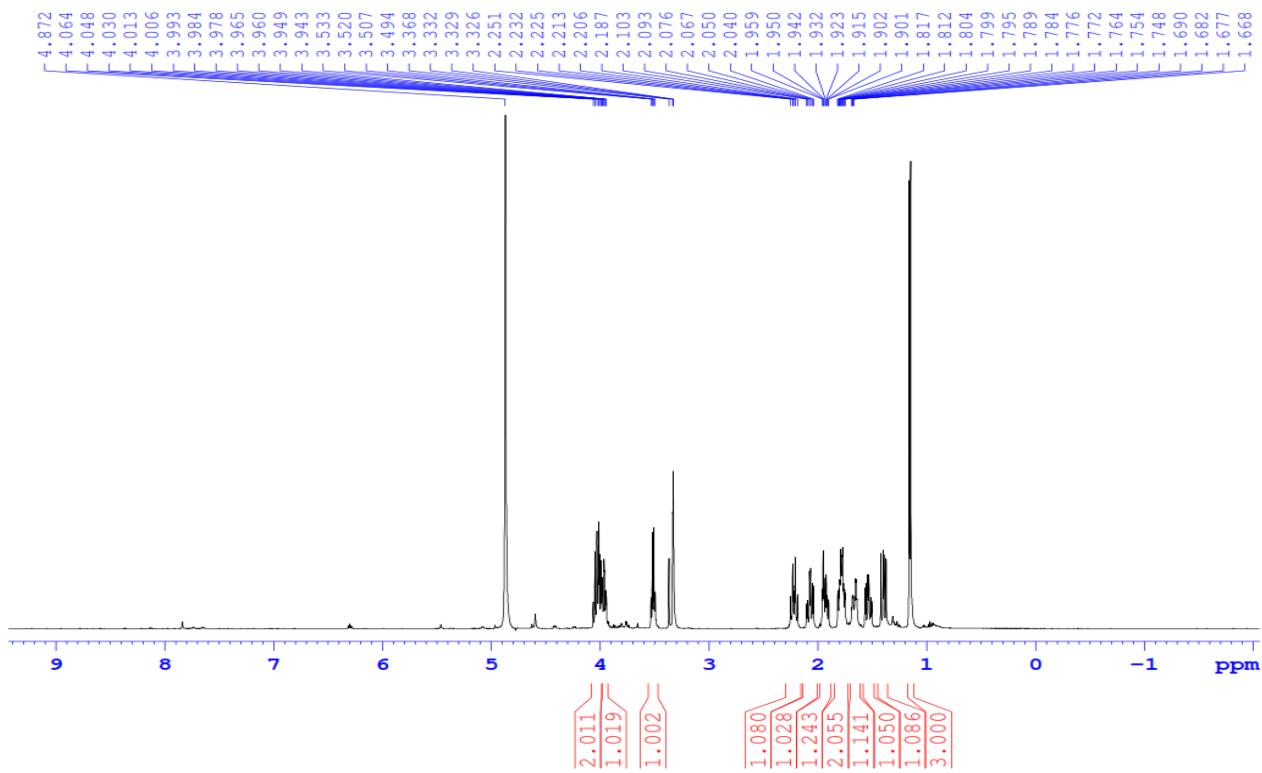


Figure S10. ^1H NMR spectrum (CD_3OD , 500 MHz) of compound **2**.

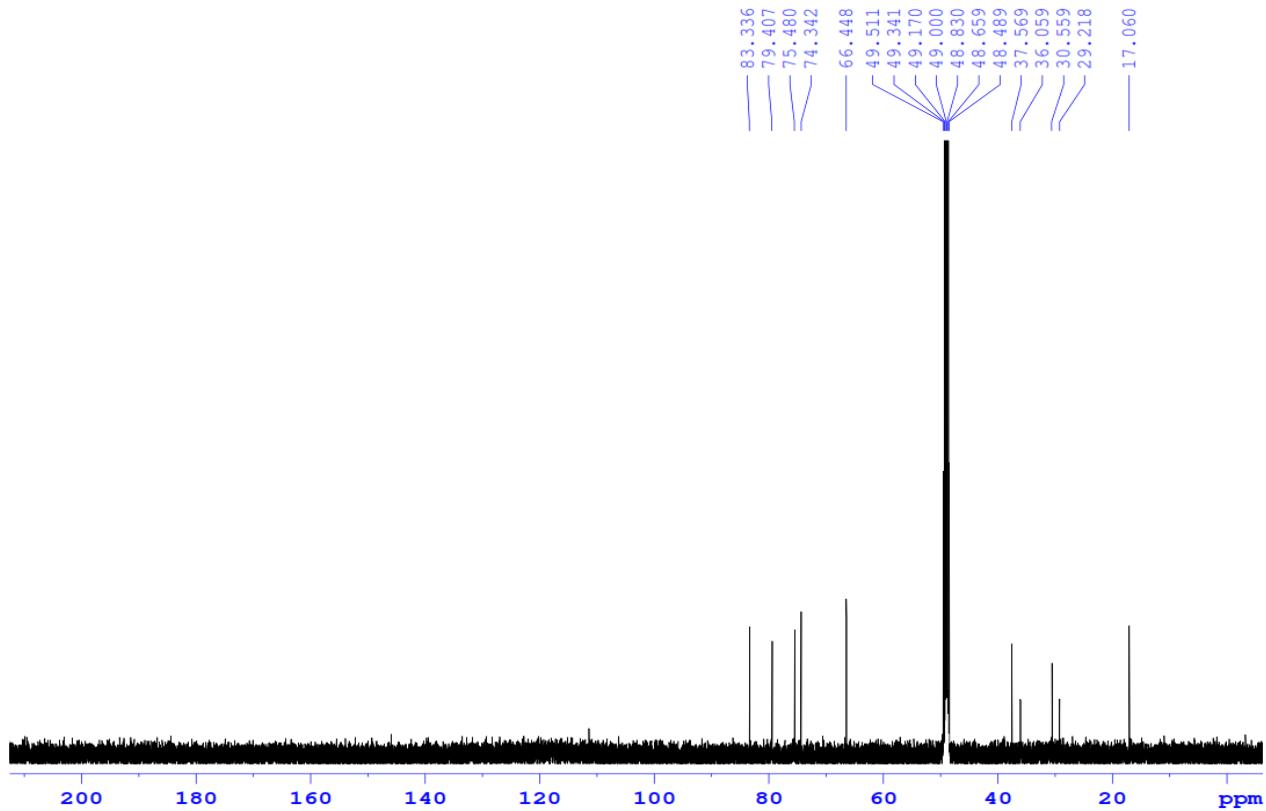


Figure S11. ^{13}C NMR spectrum (CD_3OD , 125 MHz) of compound 2.

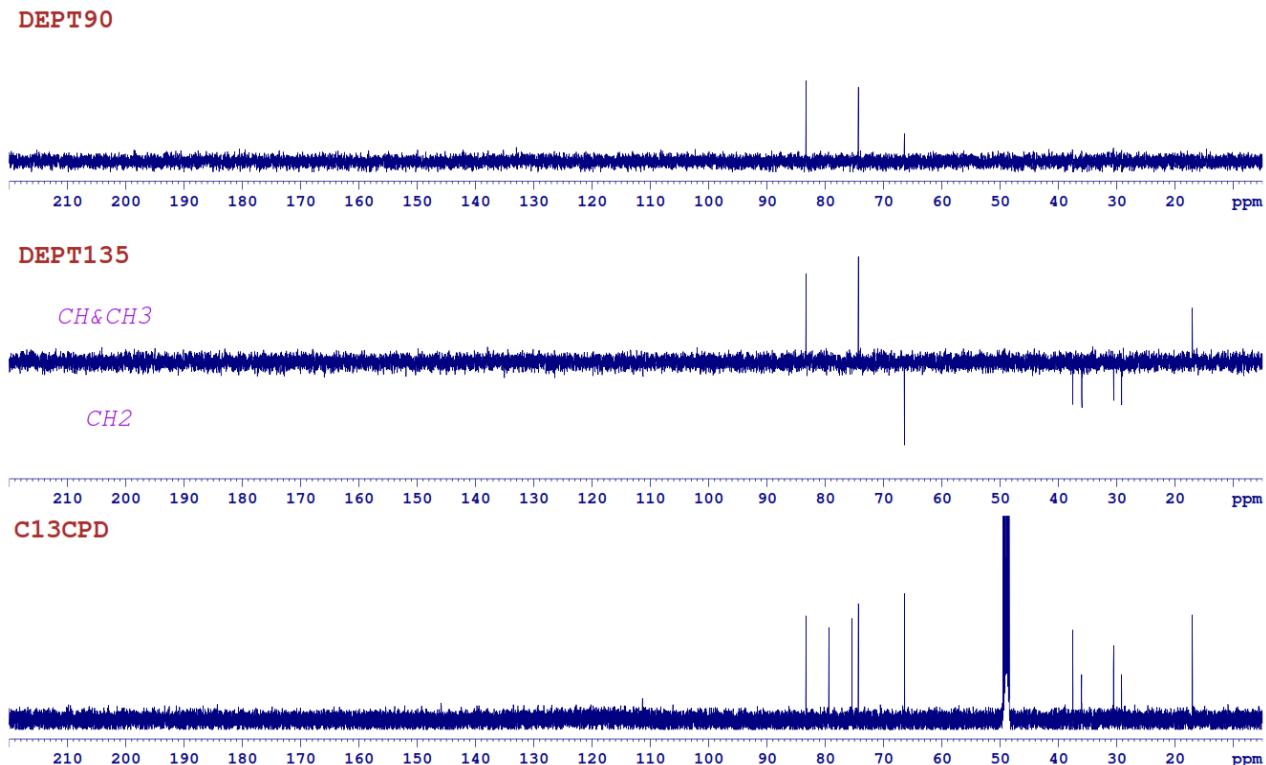


Figure S12. DEPT spectrum (CD_3OD , 125 MHz) of compound 2.

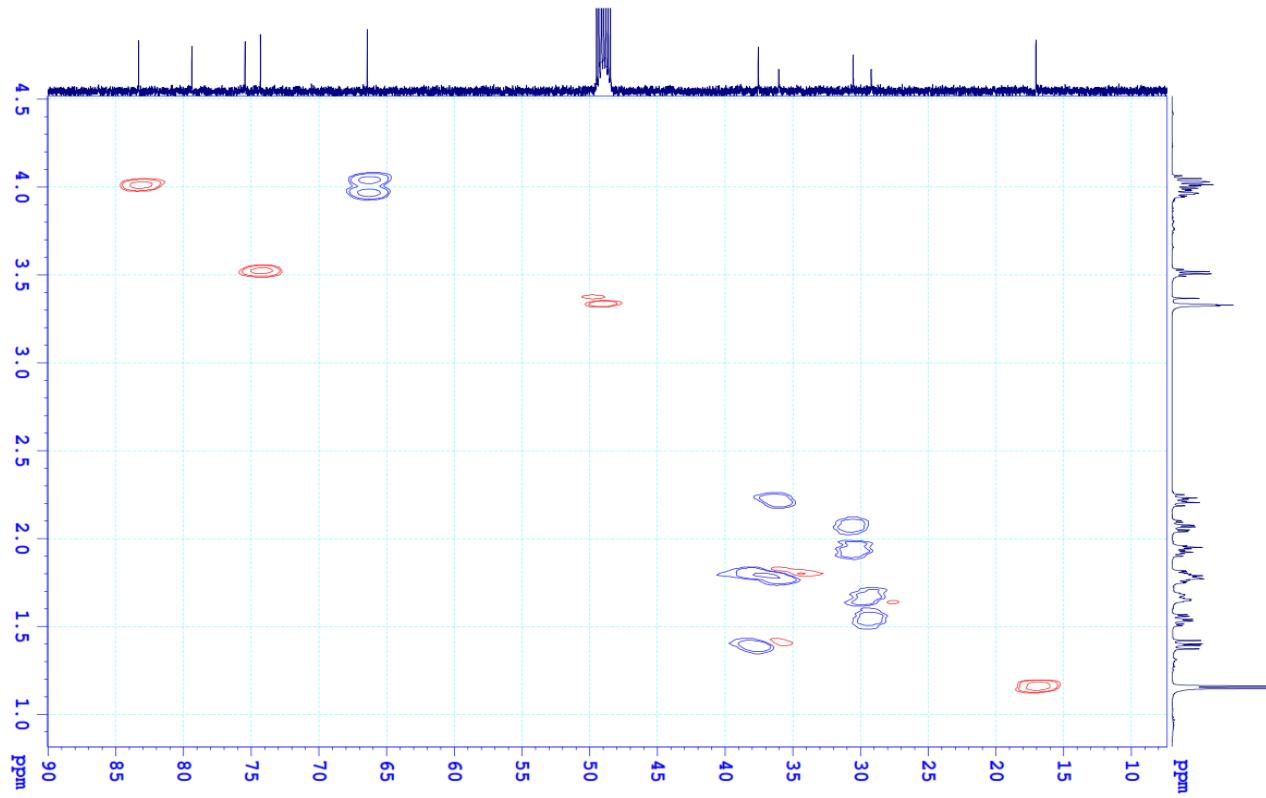


Figure S13. HMQC spectrum (CD_3OD , 500 MHz) of compound 2.

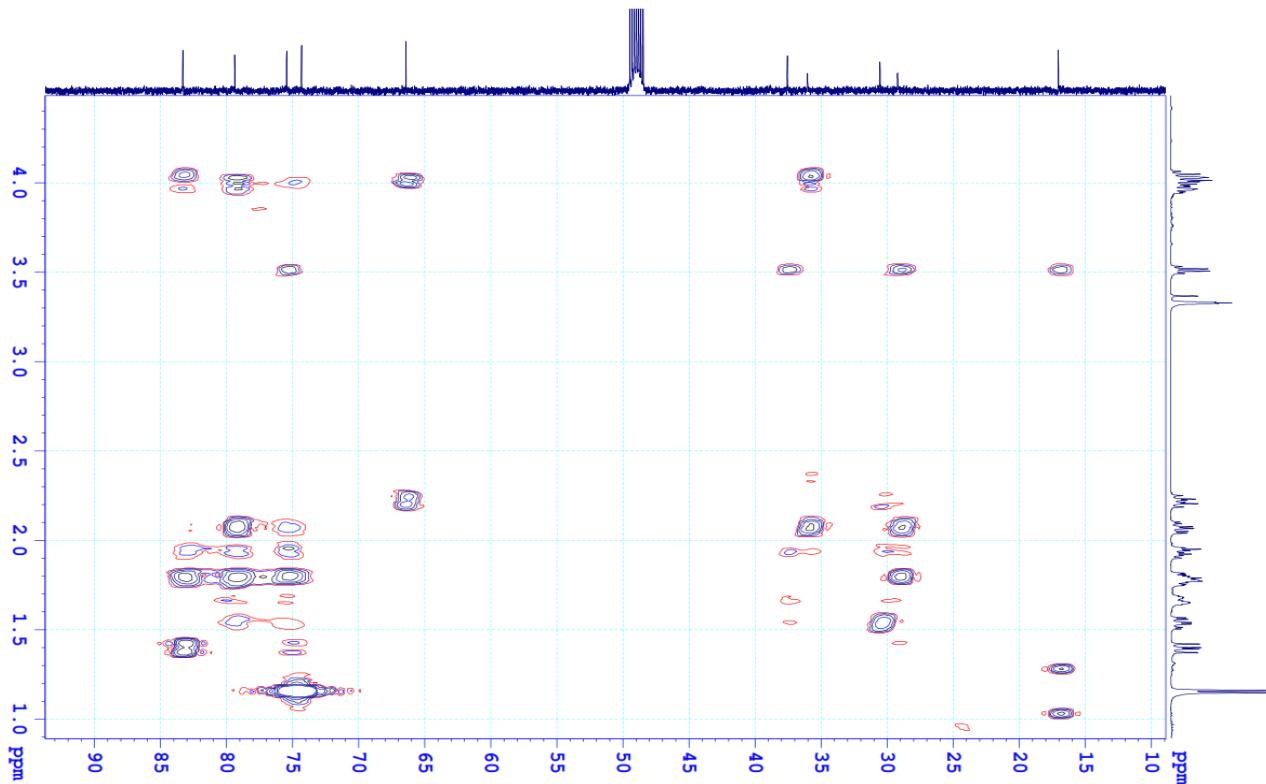


Figure S14. HMBC spectrum (CD_3OD , 500 MHz) of compound 2.

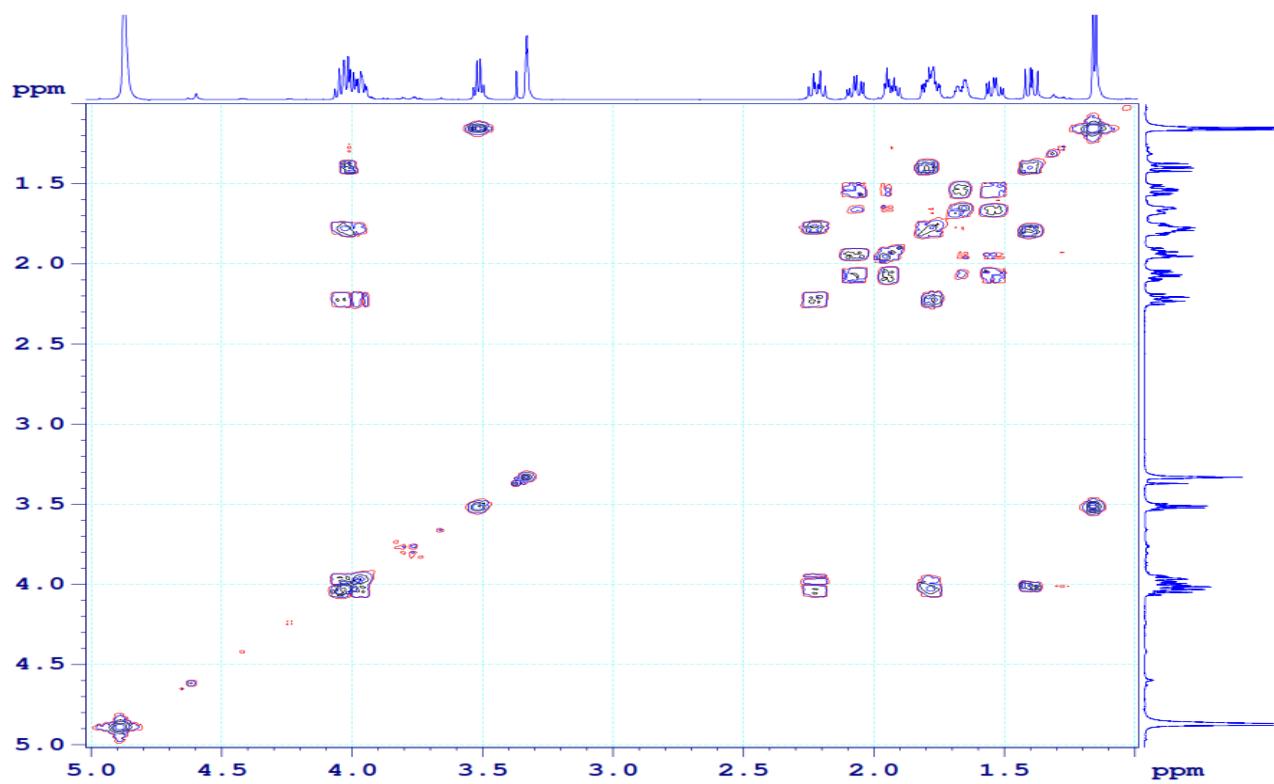


Figure S15. COSY spectrum (CD_3OD , 500 MHz) of compound 2.

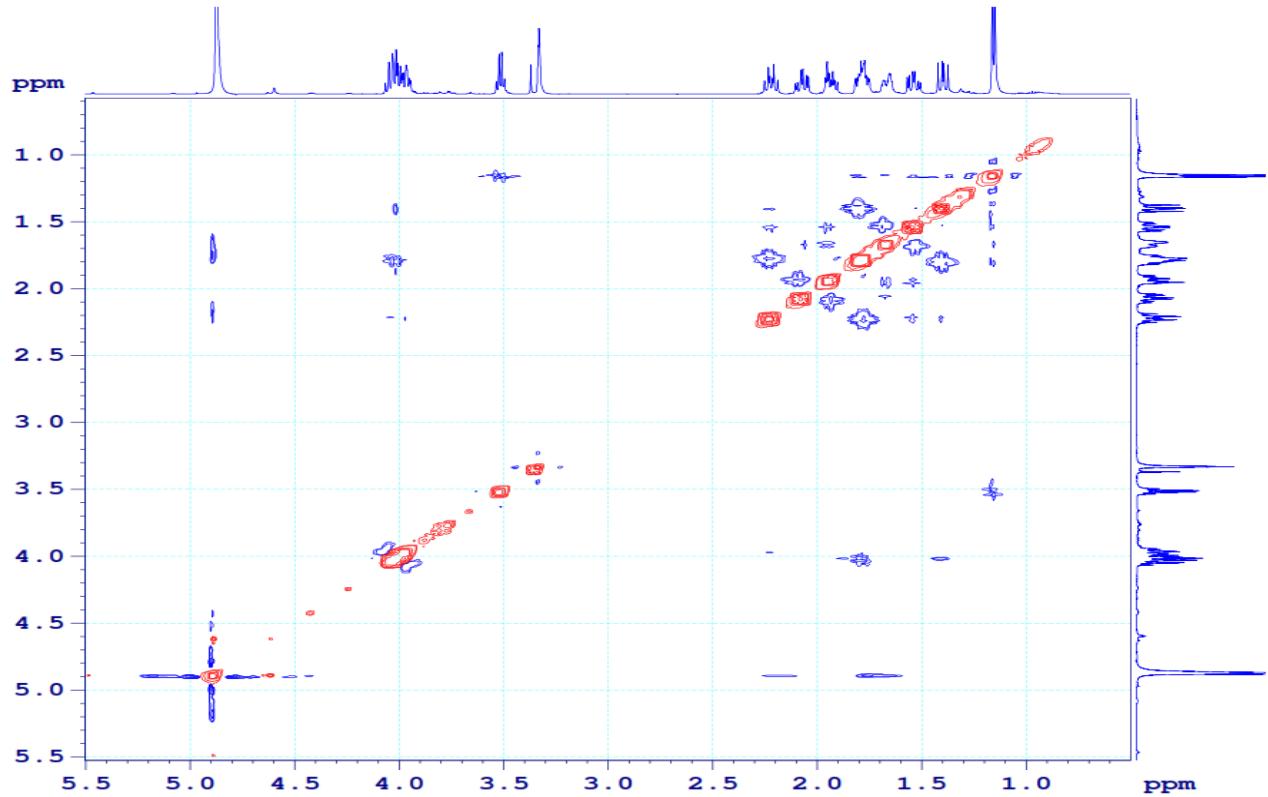


Figure S16. NOESY spectrum (CD_3OD , 500 MHz) of compound 2.

¹H and ¹³C NMR spectroscopic data of isolated compounds 3–5 and 7–12

Clerindicin E (**3**): Colorless oil; $[\alpha]_D^{23} + 1.15^\circ$ (*c* 0.011, MeOH); IR (dry film) ν_{max} 3300, 2950, 1430, 1270, 1170, 920, and 850 cm^{-1} ; EIMS *m/z* 158 [M]⁺, 140 [M - H₂O]⁺, and 122 [M - 2H₂O]⁺; ¹H NMR (500 MHz, CD₃OD): δ_{H} 1.97 (2H, m, H-3), 3.85 (2H, m, H-8), 3.93 (1H, m, H-2), and 3.95 (1H, m, H-4). ¹³C NMR (125 MHz, CD₃OD): δ_{C} 75.2 (C-1), 82.1 (C-2), 35.8 (C-3), 66.7 (C-4), 31.0 (C-5), 32.7 (C-6), 39.4 (C-7), and 66.0 (C-8).

Rengyol (**4**): White solid; mp 124°C; $[\alpha]_D^{23} + 0.8^\circ$ (*c* 0.01, MeOH); ¹H NMR (500 MHz, CD₃OD): δ_{H} 1.39 – 1.75 (10H, m, H-2, H-3, H-5, H-6, and H-7), 3.75 (2H, t, *J* = 7.5 Hz, H-1), and 3.54 (1H, broad quintet, *J* = 5.0 Hz, H-1); ¹³C NMR (125 MHz, CD₃OD): δ_{C} 70.7 (C-1), 36.0 (C-2), 31.8 (C-3), 70.7 (C-4), 31.2 (C-5), 36.0 (C-6), 45.5 (C-7), and 59.1 (C-8).

Cornoside (**5**): Brown oil; $[\alpha]_D^{23} -19.5^\circ$ (*c* 1.5, EtOH); ¹H NMR (500 MHz, CD₃OD): δ_{H} 2.07 (2H, t, *J* = 6.5 Hz, H-7), 3.16 – 3.69 (6H, H-2', H-3', H-4', H-5', and H-6'), 3.87 (1H, dt, *J* = 6.5 Hz, H-8a), 4.01 (1H, dt, *J* = 6.5 Hz, H-8b), 4.24 (1H, d, *J* = 8.0 Hz, H-1'), 6.14 (2H, dd, *J* = 8.0, 1.5 Hz, H-2 and H-6), and 7.04 (2H, dd, *J* = 8.0, 1.5 Hz, H-3 and H-5); ¹³C NMR (125 MHz, CD₃OD): δ_{C} 69.3 (C-1), 154.4 (C-2), 127.9 (C-3), 188.0 (C-4), 127. (C-5), 154.4 (C-6), 41.0 (C-7), 65.7 (C-8), 104.3 (C-1'), 75.0 (C-2'), 78.5 (C-3'), 71.6 (C-4'), 77.9 (C-5'), and 62.7 (C-6').

Jaceosidin (**7**): Pale yellow crystals; mp 259 – 260°C; ¹H NMR (500 MHz, DMSO-*d*₆): δ_{H} 3.75 (3H, s, 6-OCH₃), 3.88 (3H, s, 3'-OCH₃), 6.60 (1H, s, H-8), 6.86 (1H, s, H-3), 7.54 (1H, br s, H-2'); 6.92 (1H, d, *J* = 9.0 Hz, H-5'), and 7.53 (1H, br d, *J* = 9.0 Hz, H-6'); ¹³C NMR (125 MHz, DMSO-*d*₆): δ_{C} 164.0 (C-2), 103.0 (C-3), 182.4 (C-4), 153.0 (C-5), 131.6 (C-6), 157.5 (C-7), 94.6 (C-8), 152.7 (C-9), 104.4 (C-10), 121.8 (C-1'), 110.4 (C-2'), 148.3 (C-3'), 151.0 (C-4'), 116.0 (C-5'), 120.6 (C-6'), 56.2 (3'-OCH₃), and 60.2 (6-OCH₃).

Pomonic acid (**8**): Crystalline powder; $[\alpha]_D^{23} + 50.0^\circ$ (*c* 0.02, CHCl₃); mp 202 – 203°C; ¹H NMR (500 MHz, CD₃OD): δ_{H} 0.88 (3H, s, H-26), 0.95 (3H, d, *J* = 6.5 Hz, H-30), 1.04 (1H, m, H-

15b), 1.07 (3H, s, H-24), 1.10 (3H, s, H-25), 1.11 (3H, s, H-23), 1.21 (3H, s, H-29), 1.27 (1H, m, H-2b), 1.36 (1H, m, H-20), 1.37 (3H, s, H-27), 1.41 (1H, m, H-5), 1.41 (1H, m, H-7b), 1.48 (1H, m, H-22b), 1.54 (1H, m, H-6), 1.56 (1H, m, H-16b), 1.63 (1H, m, H-7a), 1.64 (1H, m, H-1a), 1.74 (1H, m, H-2a), 1.76 (1H, m, H-1b), 1.82 (1H, m, H-9), 1.84 (1H, m, H-15a), 1.94 (1H, m, H-22a), 2.07 (2H, dd, $J = 3.5, 8.0$ Hz, H-11), 2.40 (1H, m, H-21b), 2.53 (1H, s, H-18), 2.60 (1H, m, H-16a), 2.62 (1H, m, H-21a), and 5.32 (1H, t, $J = 3.5$ Hz, H-12); ^{13}C NMR (125 MHz, CD_3OD): δ_{C} 38.9 (C-1), 27.2 (C-2), 220.5 (C-3), 48.5 (C-4), 56.6 (C-5), 20.8 (C-6), 33.7 (C-7), 41.0 (C-8), 47.7 (C-9), 37.8 (C-10), 24.7 (C-11), 129.2 (C-12), 140.0 (C-13), 42.7 (C-14), 29.6 (C-15), 26.6 (C-16), 49.2 (C-17), 55.1 (C-18), 73.5 (C-19), 43.0 (C-20), 35.1 (C-21), 40.2 (C-22), 27.0 (C-23), 21.9 (C-24), 15.4 (C-25), 17.3 (C-26), 24.6 (C-27), 182.5 (C-28), 27.1 (C-29), and 16.5 (C-30).

Pomolic acid (9): Crystalline powder; $[\alpha]_D^{23} + 22.6^{\circ}$ (c 0.01, CHCl_3); ^1H NMR (500 MHz, CD_3OD): δ_{H} 0.81 (3H, s, H-26), 0.86 (3H, s, H-24), 0.94 (3H, d, $J = 6.5$ Hz, H-30), 0.95 (3H, s, H-23), 0.97 (3H, s, H-25), 1.03 (1H, m, H-15b), 1.21 (3H, s, H-29), 1.26 (1H, m, H-21b), 1.34 (1H, m, H-7b), 1.35 (1H, m, H-5), 1.38 (3H, s, H-27), 1.39 (1H, m, H-20), 1.40 (1H, m, H-1b), 1.42 (1H, m, H-6b), 1.46 (1H, m, H-6a), 1.55 (1H, m, H-2b), 1.64 (1H, m, H-7a), 1.65 (1H, m, H-1a), 1.66 (1H, m, H-22b), 1.72 (1H, m, H-21a), 1.76 (1H, m, H-22a), 1.82 (1H, m, H-15a), 1.88 (1H, m, H-9), 1.98 (1H, m, H-11b), 2.00 (1H, m, H-2a), 2.03 (1H, m, H-11a), 2.52 (1H, s, H-18), 2.60 (2H, m, H-16), 3.36 (1H, d, $J = 5.0$, H-3), and 5.31 (1H, br t, $J = 3.5$ Hz, H-12); ^{13}C NMR (125 MHz, CD_3OD): δ_{C} 34.2 (C-1), 26.2 (C-2), 76.9 (C-3), 38.3 (C-4), 50.0 (C-5), 19.4 (C-6), 34.1 (C-7), 41.2 (C-8), 48.2 (C-9), 38.1 (C-10), 24.6 (C-11), 129.5 (C-12), 139.9 (C-13), 42.7 (C-14), 29.5 (C-15), 26.6 (C-16), 49.5 (C-17), 55.1 (C-18), 73.6 (C-19), 43.0 (C-20), 27.2 (C-21), 39.0 (C-22), 29.0 (C-23), 22.9 (C-24), 15.7 (C-25), 17.5 (C-26), 24.8 (C-27), 182.5 (C-28), 27.0 (C-29), and 16.5 (C-30).