

Supplementary Materials

Anti-Cancer and Anti-Inflammatory Activities of Three New Chromone Derivatives from the Marine-Derived *Penicillium citrinum*

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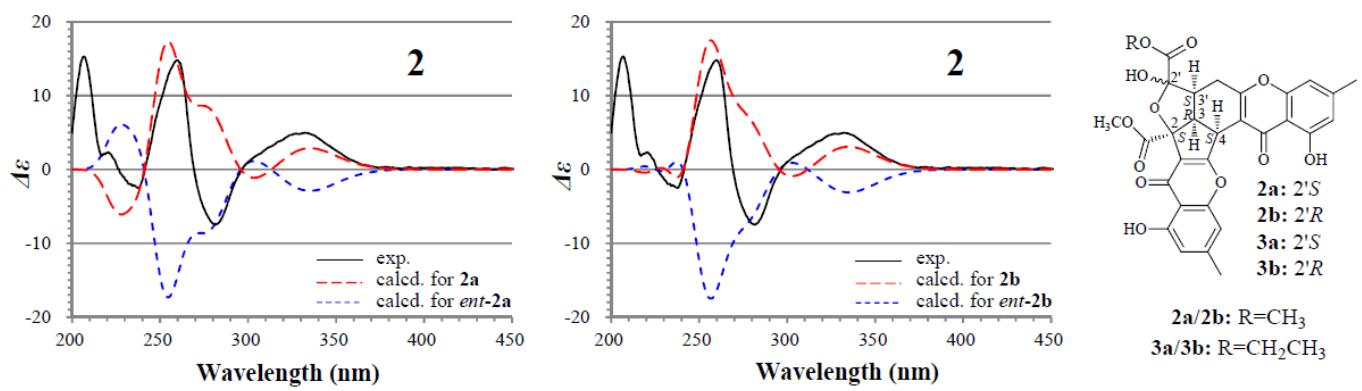


Figure S1. CD and ECD spectra of epiremisporine B.

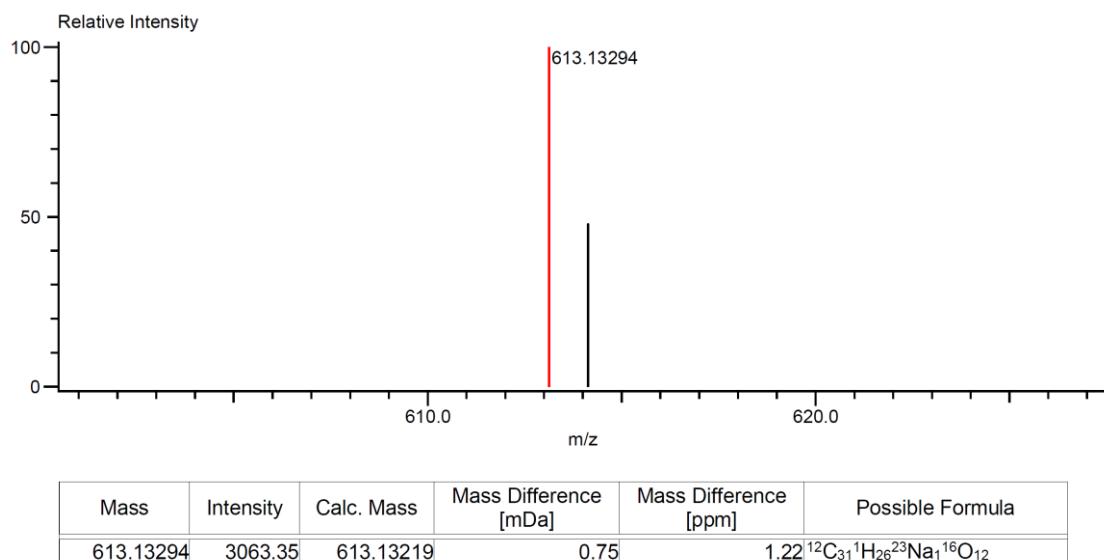


Figure S2. HRESIMS spectrum of 1.

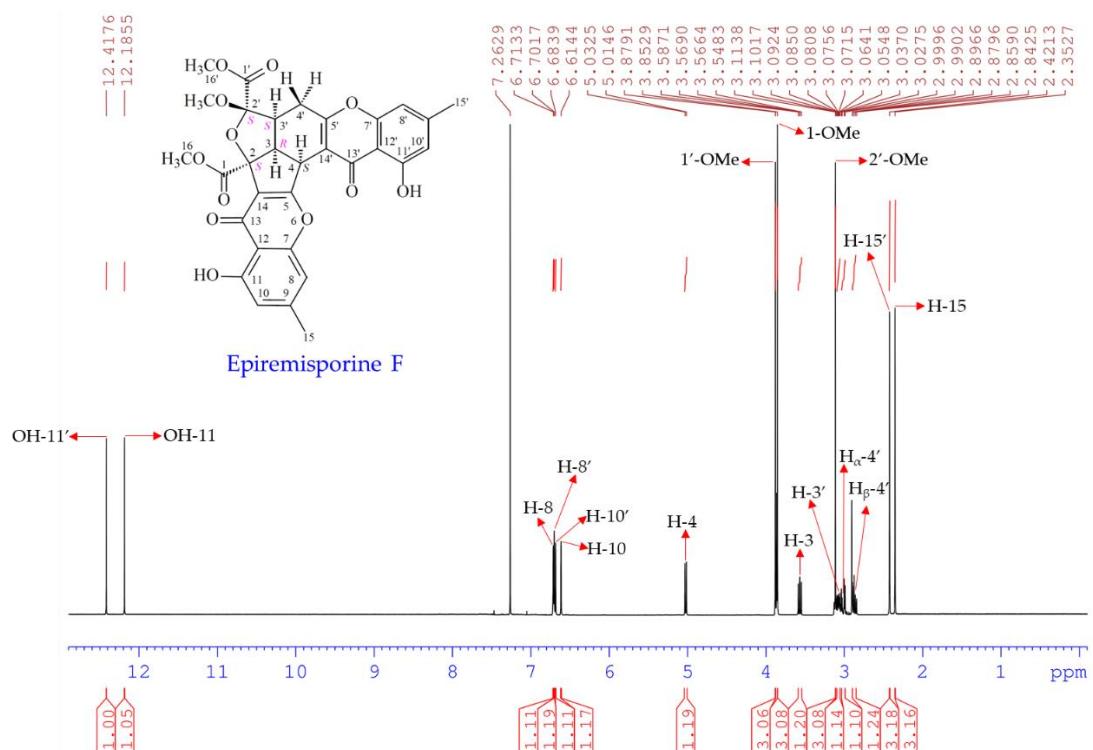


Figure S3. ^1H NMR spectrum (CDCl_3 , 500 MHz) of 1.

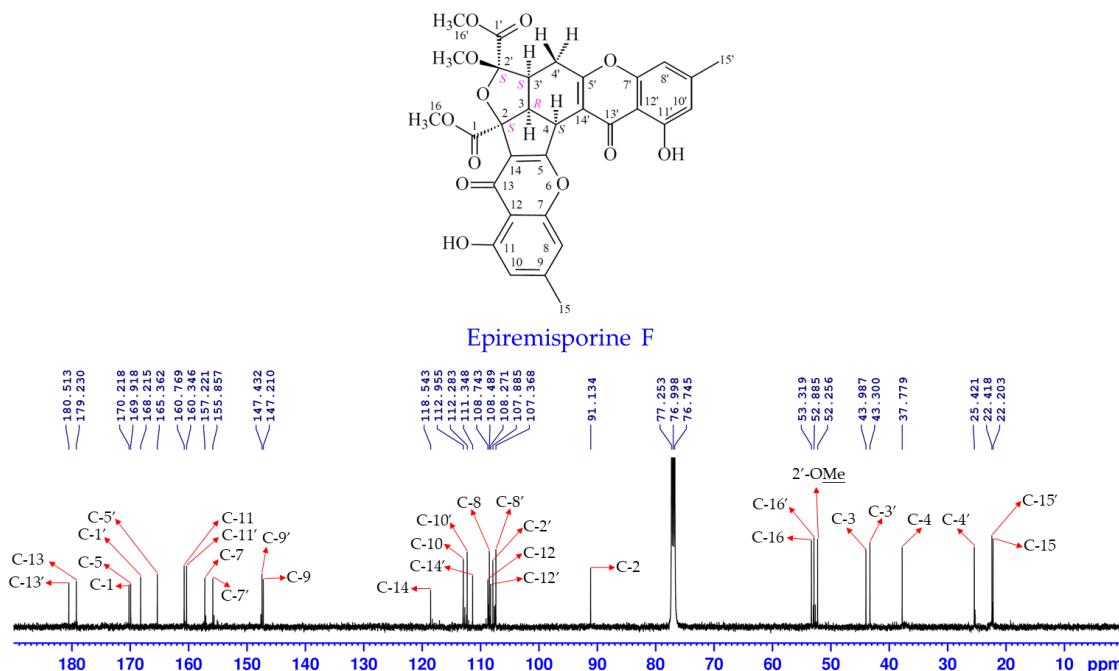


Figure S4. ^{13}C NMR (CDCl_3 , 125 MHz) spectrum of 1.

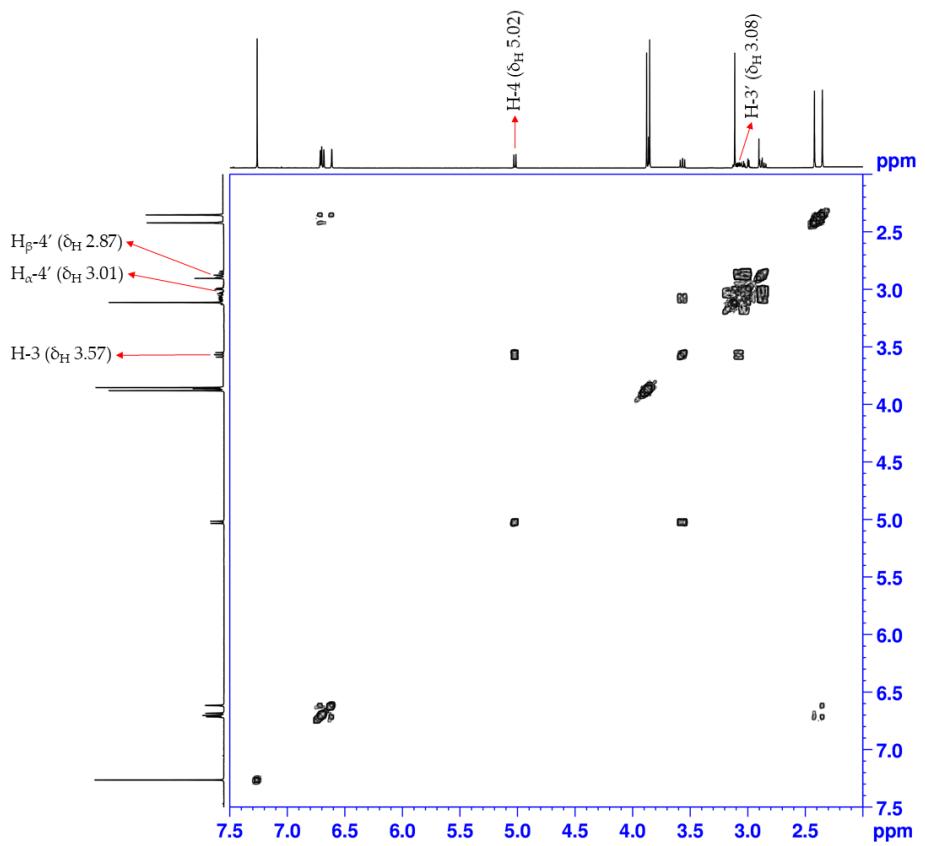


Figure S5. ^1H - ^1H COSY spectrum of 1.

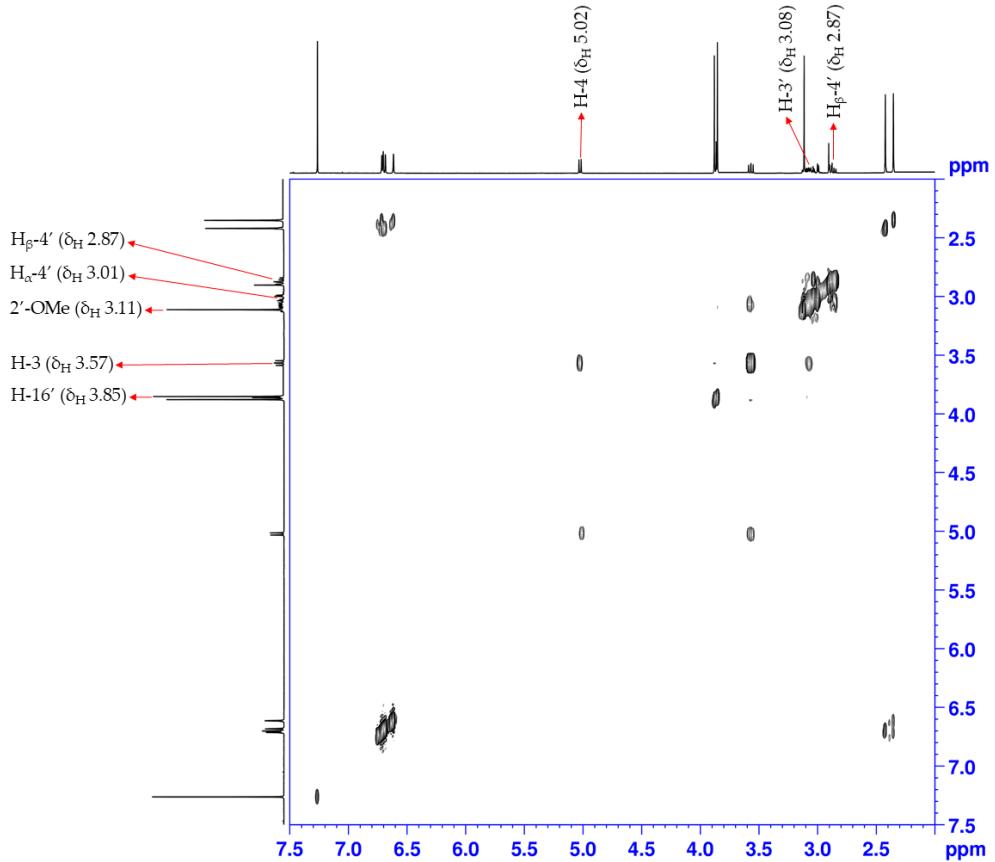


Figure S6. ROESY spectrum of 1.

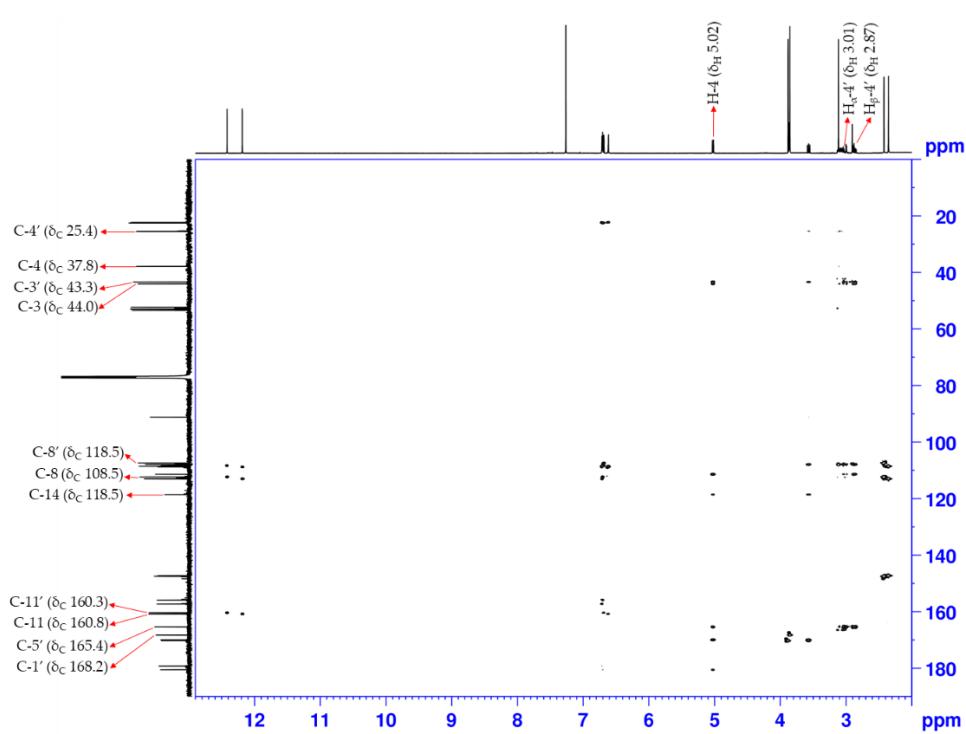


Figure S7. HMBC spectrum of 1.

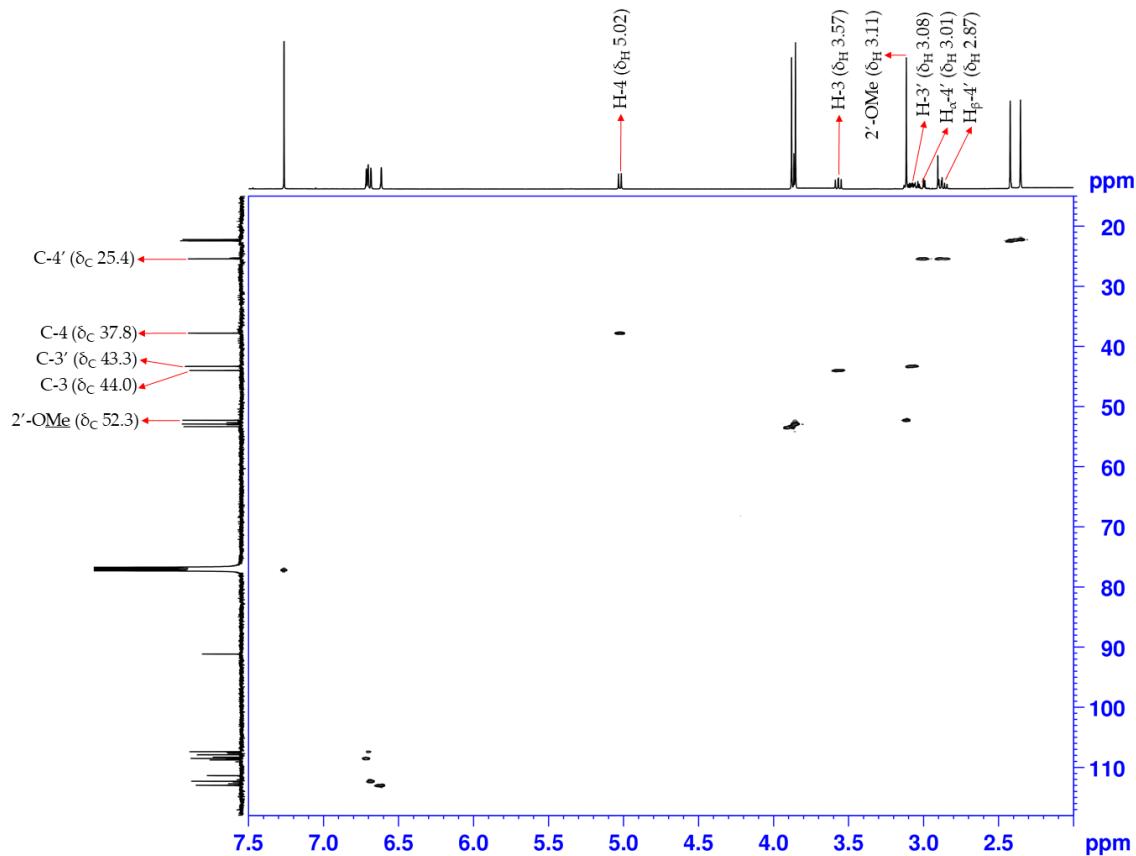


Figure S8. HSQC spectrum of 1.

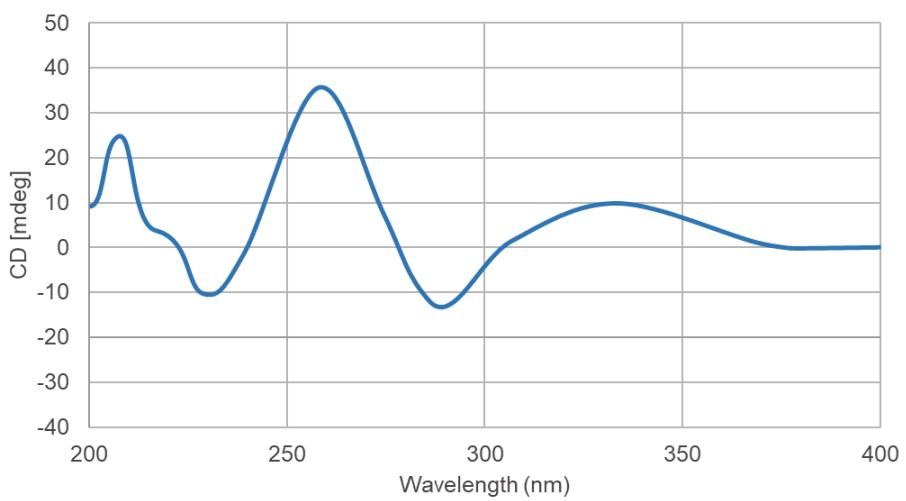
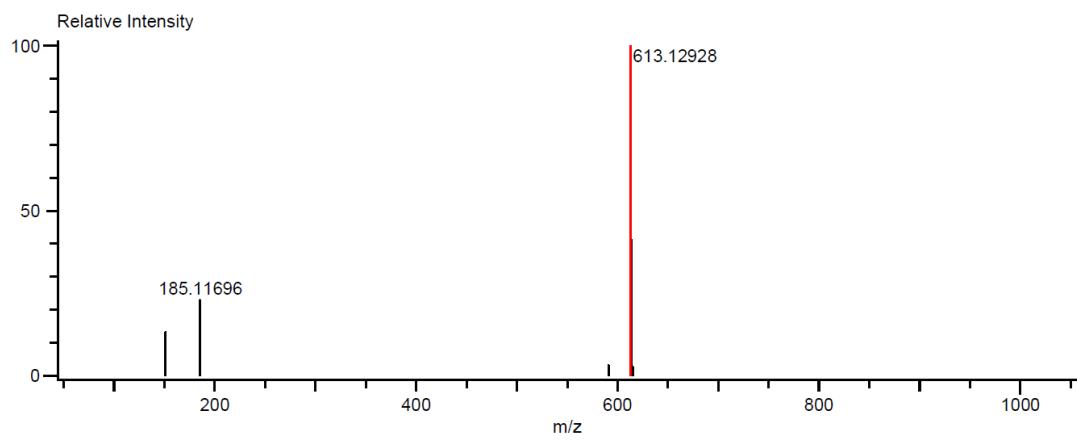


Figure S9. CD spectrum of 1.



| Mass | Intensity | Calc. Mass | Mass Difference [mDa] | Mass Difference [ppm] | Possible Formula |
|-----------|-----------|------------|-----------------------|-----------------------|--|
| 613.12928 | 5571.97 | 613.13219 | -2.91 | -4.75 | $^{12}\text{C}_{31}\text{H}_{26}^{23}\text{Na}_1\text{O}_{12}$ |
| | | 613.03829 | 90.99 | 148.42 | $^{12}\text{C}_{32}\text{H}_{14}^{23}\text{Na}_1\text{O}_{12}$ |

Figure S10. HRESIMS spectrum of 2.

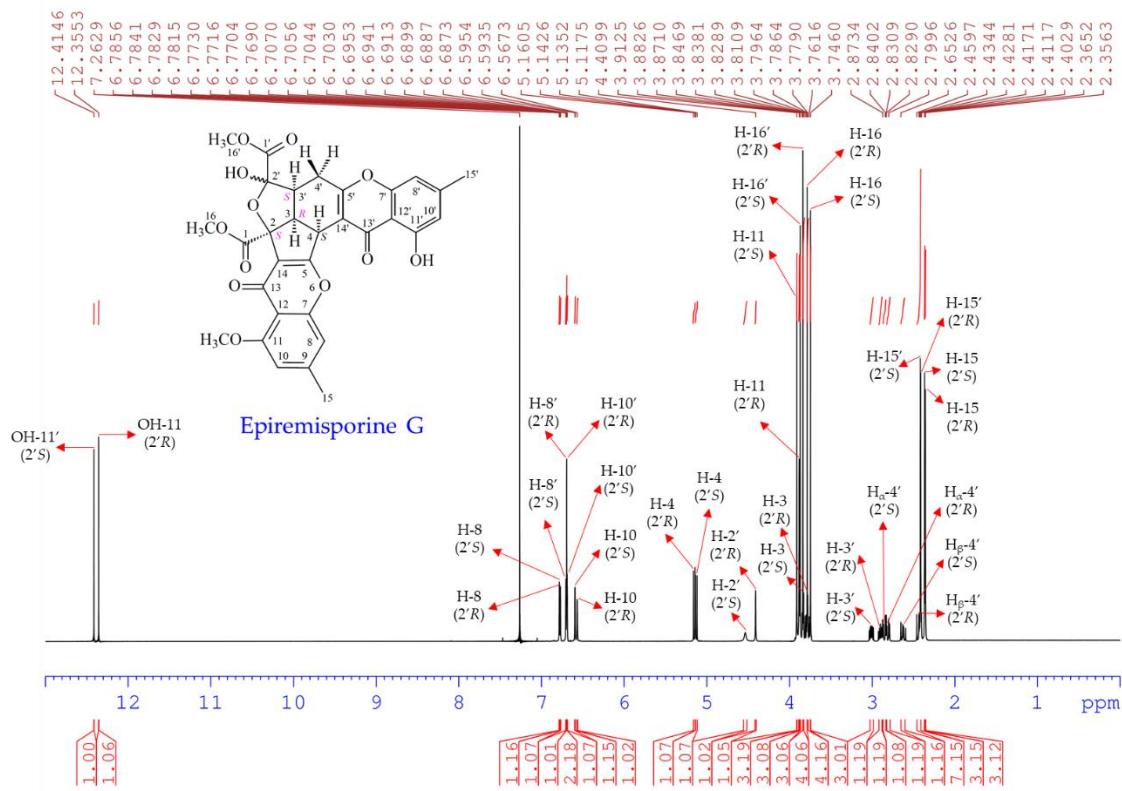


Figure S11. ^1H NMR spectrum (CDCl_3 , 500 MHz) of 2.

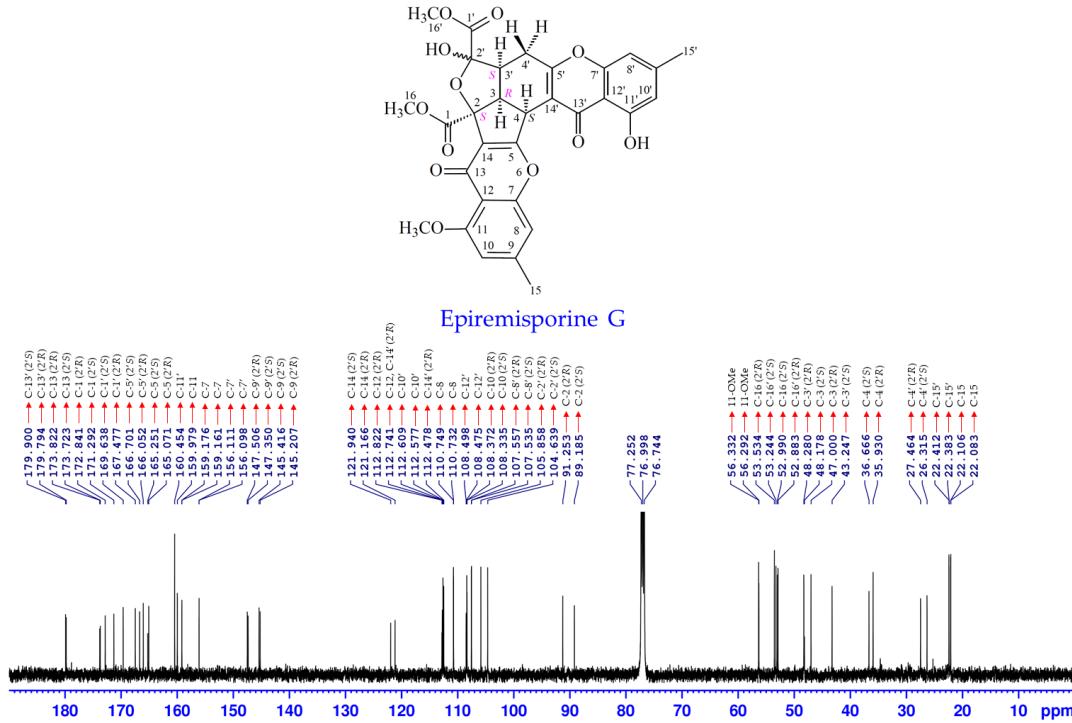


Figure S12. ^{13}C NMR spectrum (CDCl_3 , 125 MHz) of 2.

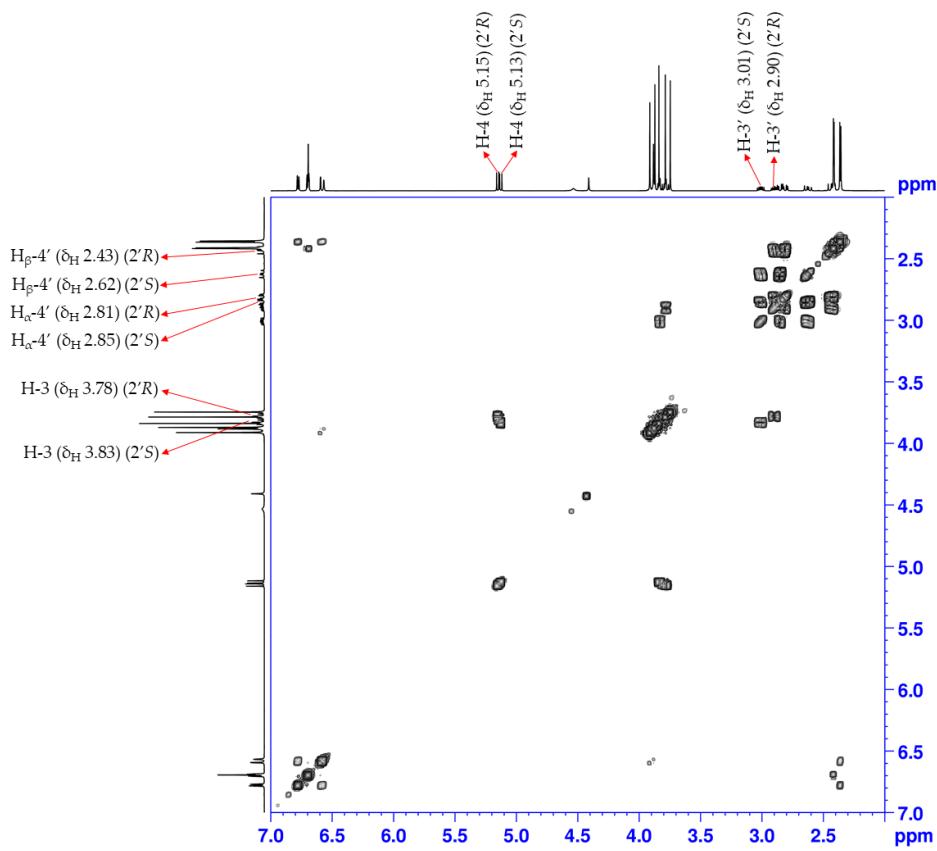


Figure S13. ^1H - ^1H COSY spectrum of 2.

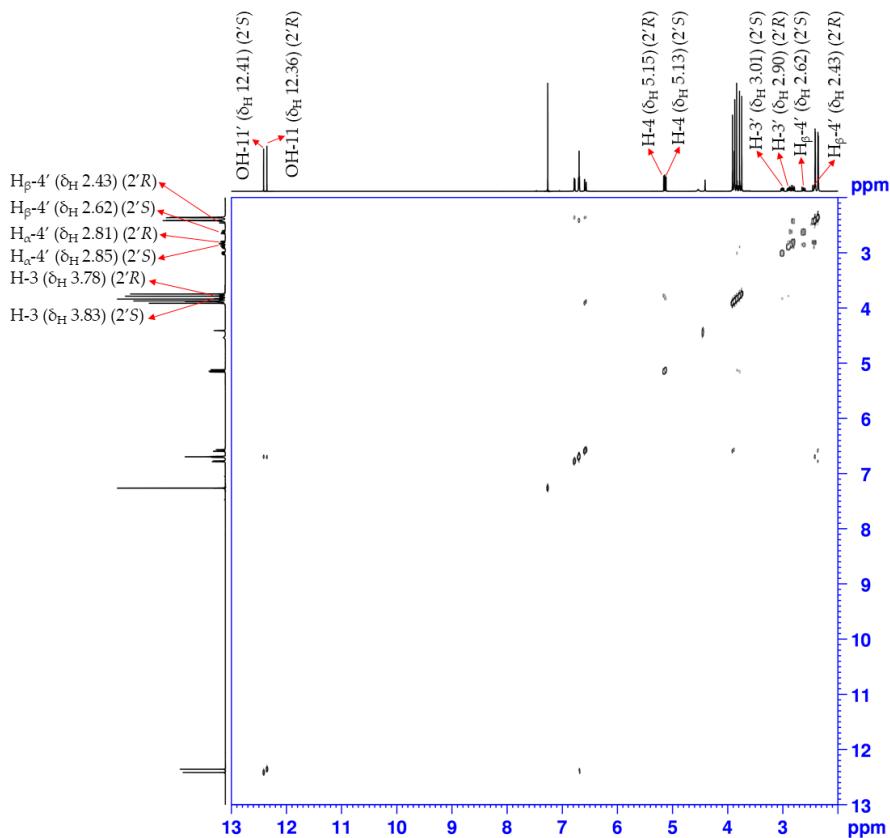


Figure S14. ROESY spectrum of 2.

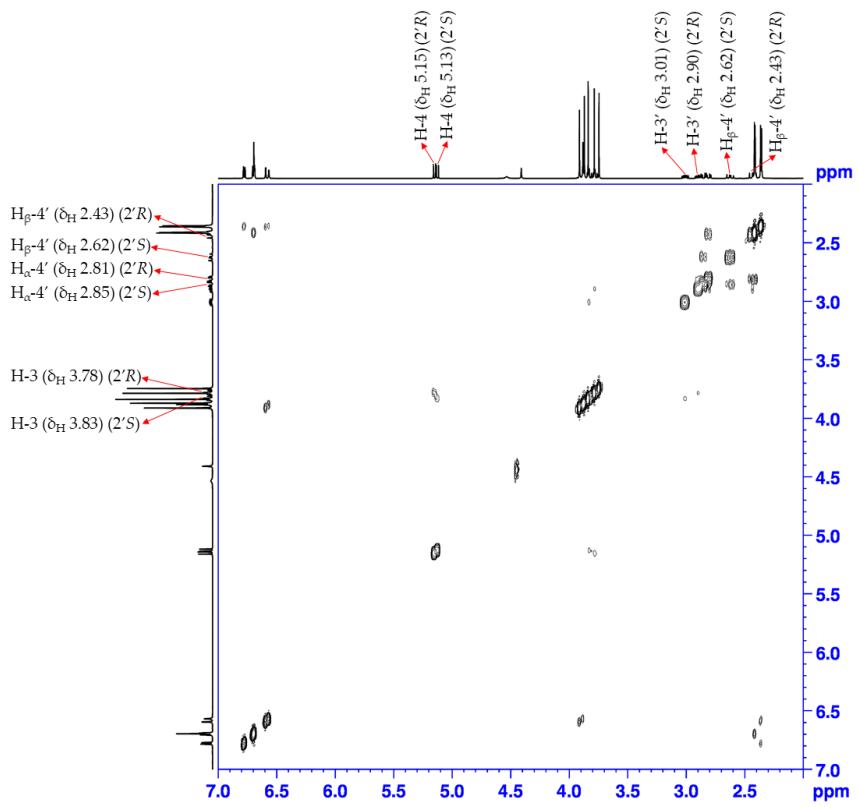


Figure S15. Expanded ROESY spectrum of 2.

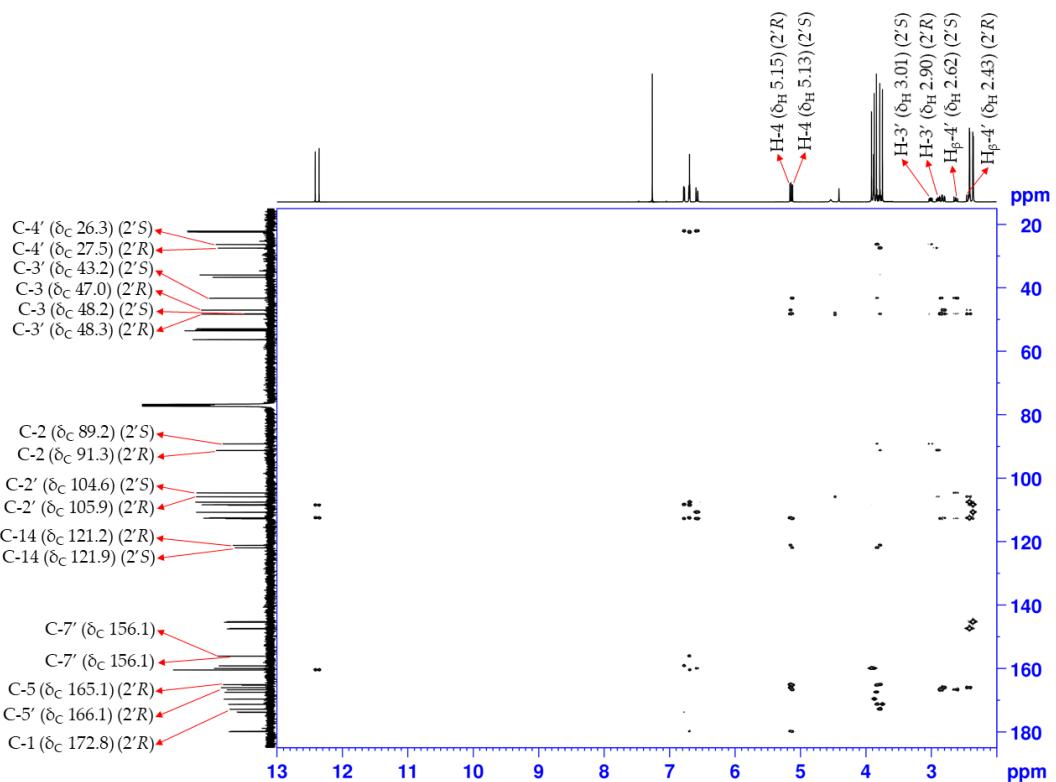


Figure S16. HMBC spectrum of 2.

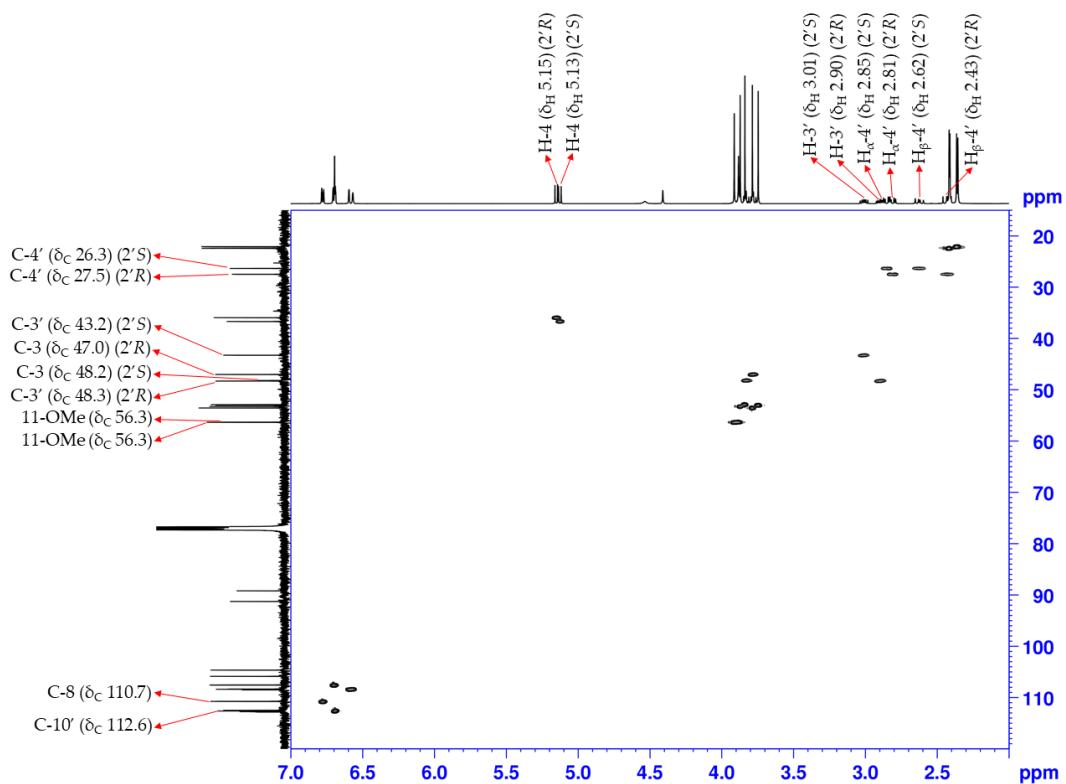


Figure S17. HSQC spectrum of **2**.

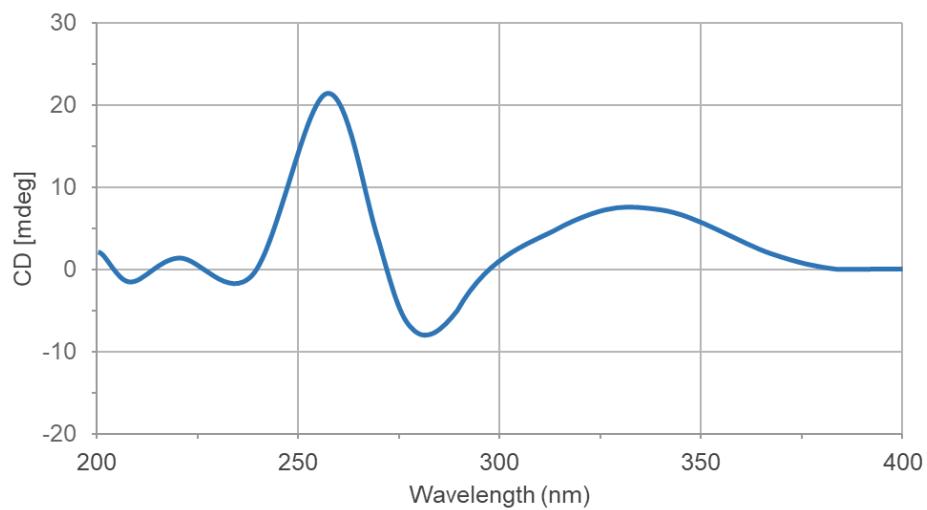
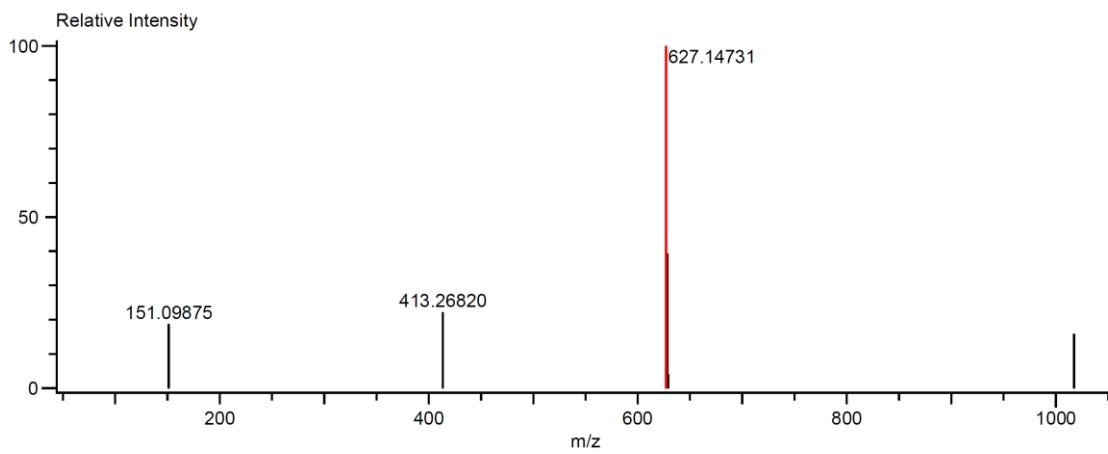


Figure S18. CD spectrum of **2**.



| Mass | Intensity | Calc. Mass | Mass Difference [mDa] | Mass Difference [ppm] | Possible Formula |
|-----------|-----------|------------|--------------------------|--------------------------|---|
| 627.14731 | 4589.50 | 627.14784 | -0.54 | -0.86 | $^{12}\text{C}_3\text{Si}^{28}\text{H}_{28}\text{Na}_1^{16}\text{O}_{12}$ |

Figure S19. HRESIMS spectrum of 3.

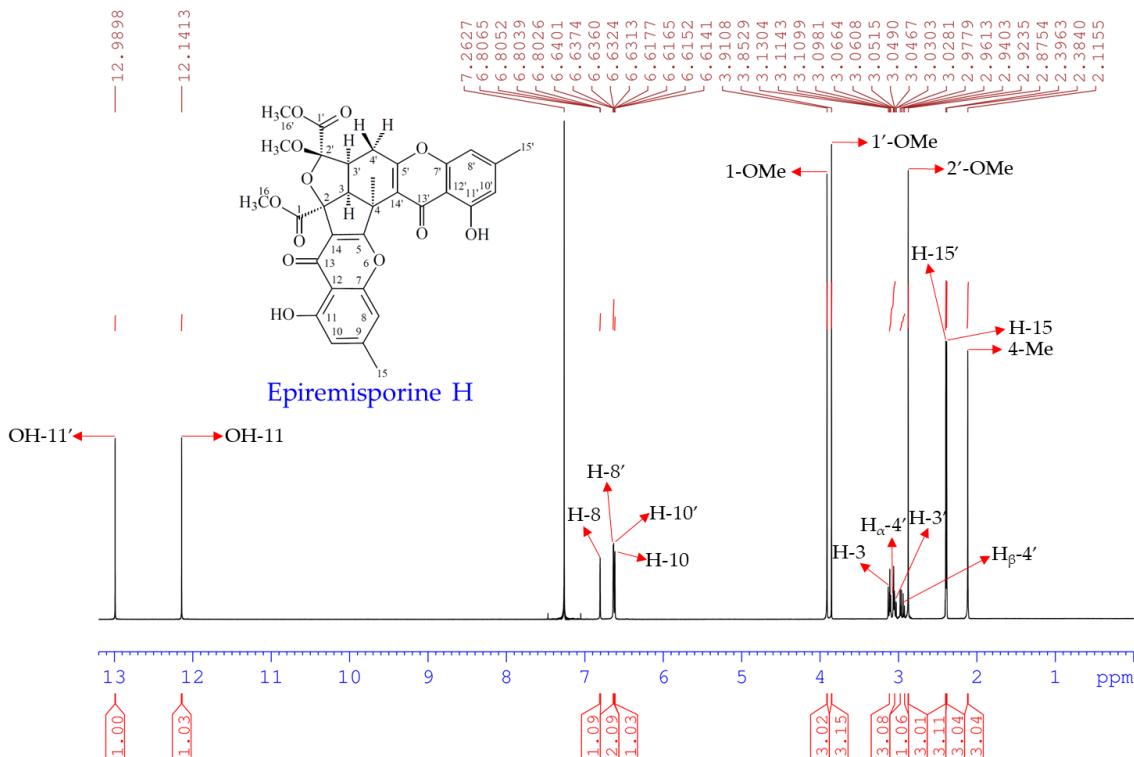


Figure S20. ^1H NMR spectrum (CDCl_3 , 500 MHz) of 3.

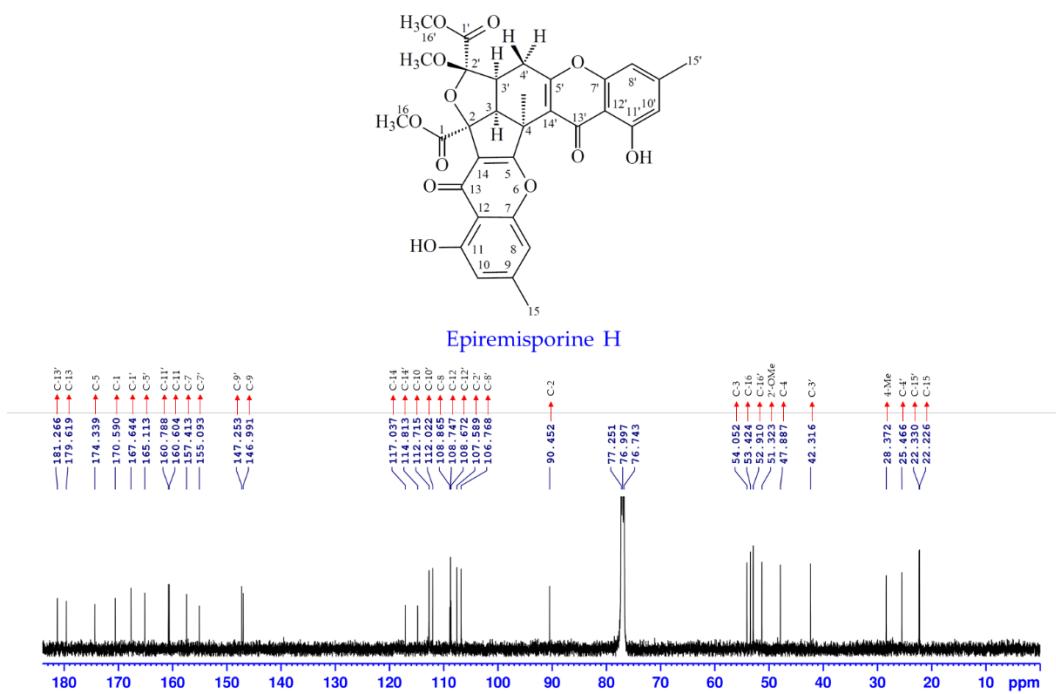


Figure S21. ^{13}C NMR spectrum of 3 (CDCl_3 , 125 MHz) of 3.

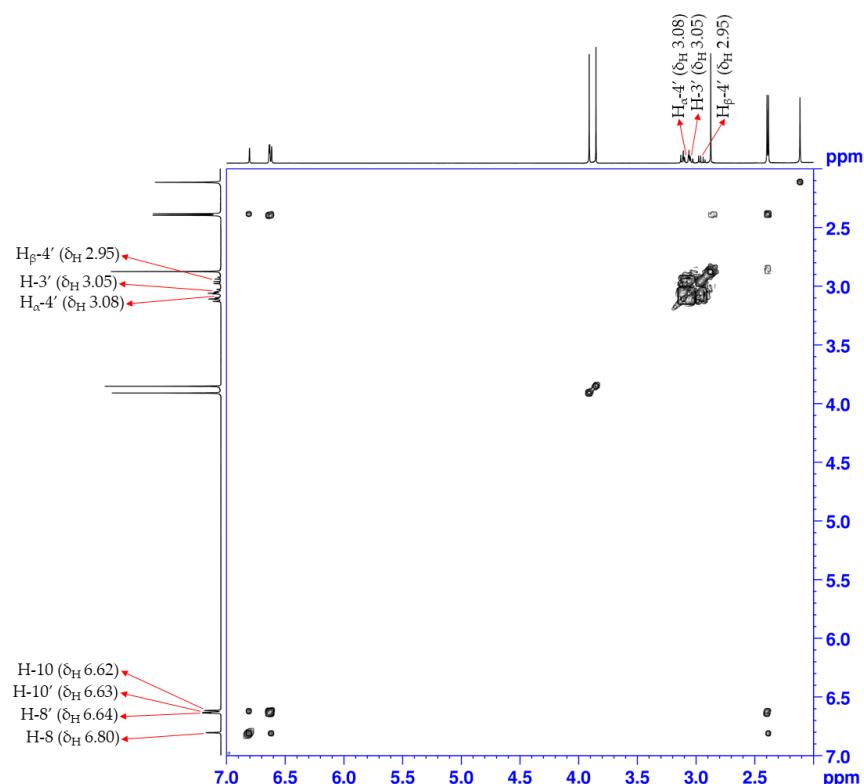


Figure S22. ^1H - ^1H COSY spectrum of 3.

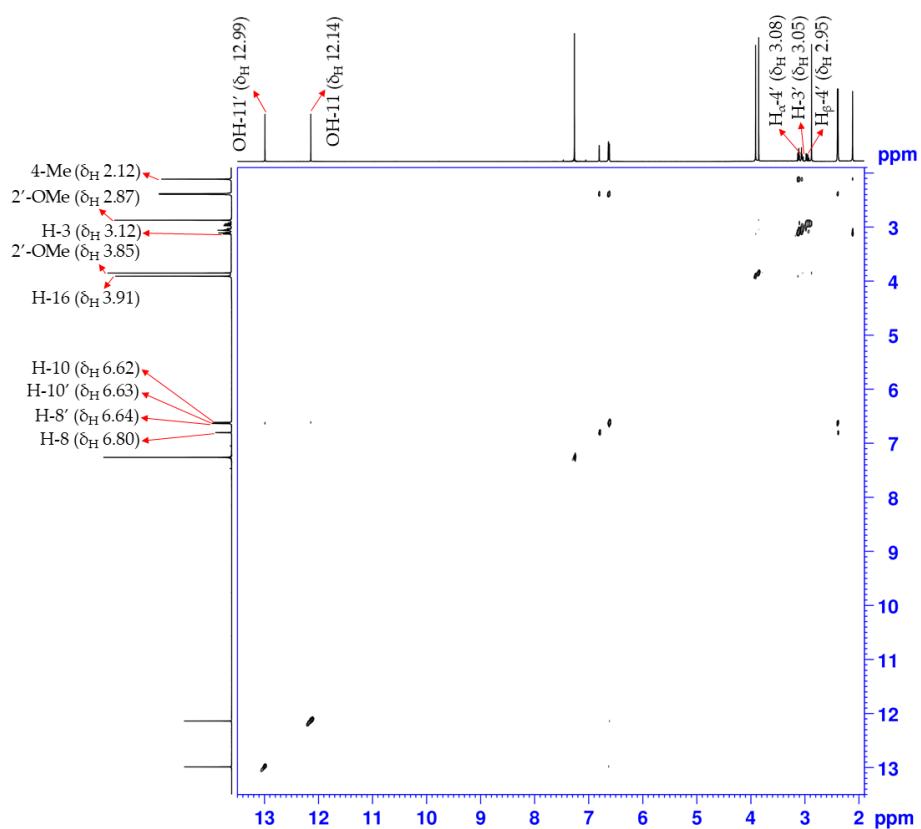


Figure S23. ROESY spectrum of **3**.

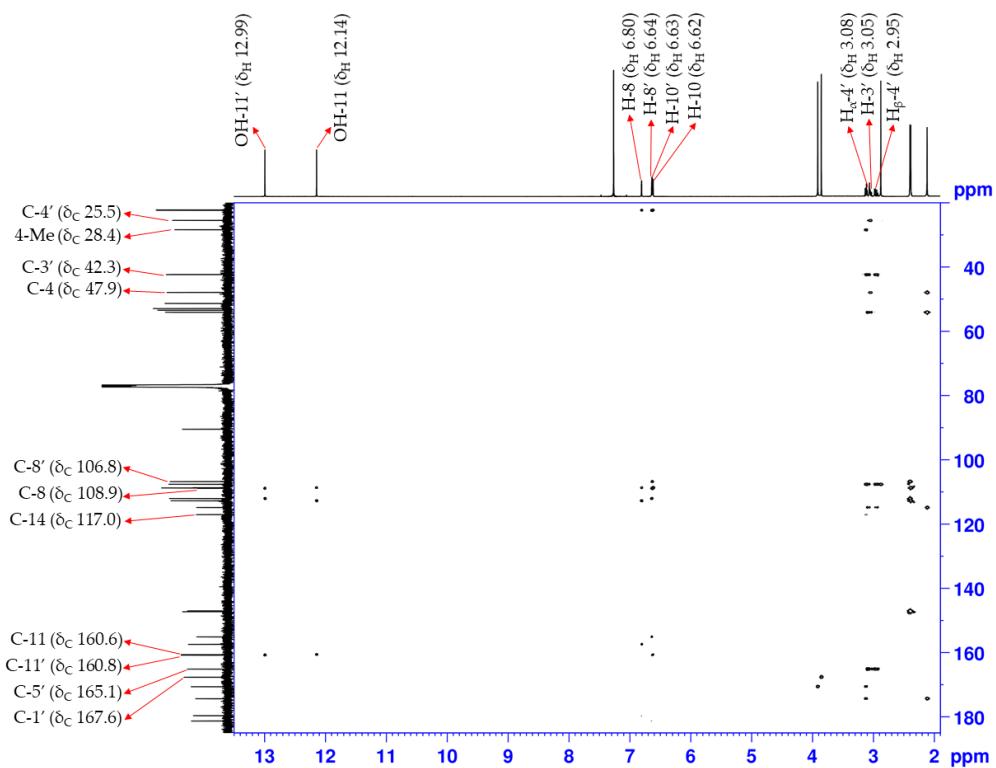


Figure S24. HMBC spectrum of **3**.

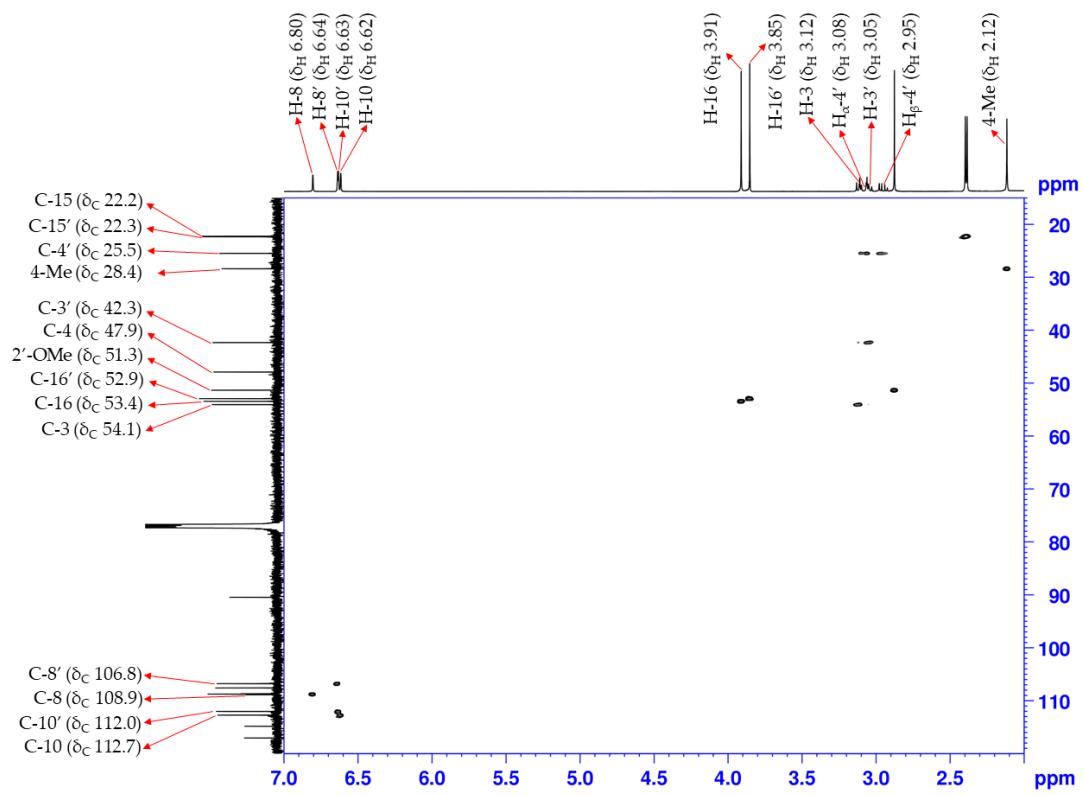


Figure S25. HSQC spectrum of 3.

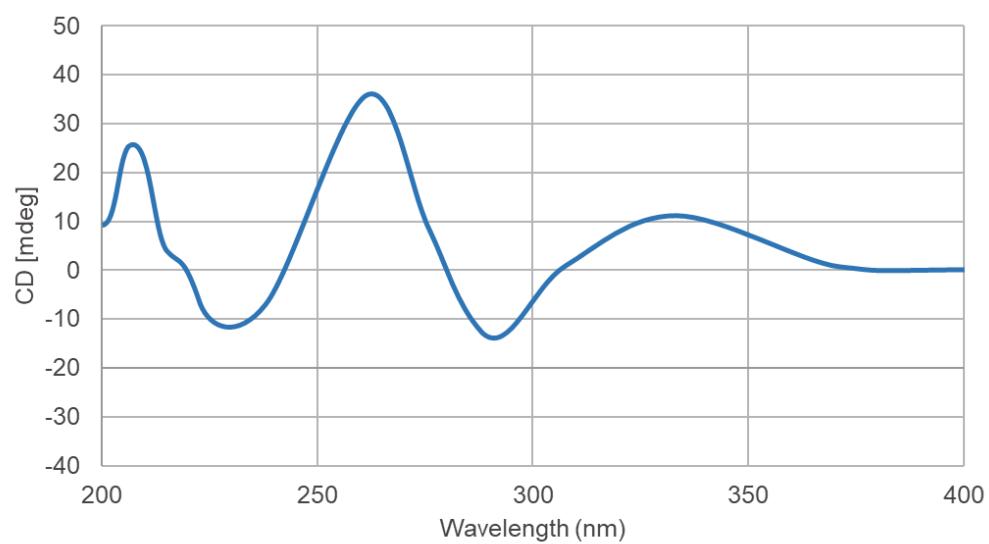


Figure S26. CD spectrum of 3.

Table S1. The cytotoxicity data of compounds **1–3** against HT-29 cell.

| HT-29 | IC ₅₀ (μM) | | |
|-------------------------------|-----------------------|-------|-------|
| | n=1 | n=2 | n=3 |
| Ctrl | 100 | 100 | 100 |
| Epiremisporine F (1) | 47.78 | 41.24 | 45.30 |
| Epiremisporine G (2) | 30.06 | 35.98 | 39.12 |
| Epiremisporine H (3) | 19.97 | 15.87 | 27.66 |
| 5-FU | 17.88 | 15.32 | 19.20 |

Table S2. The cytotoxicity data of compounds **1–3** against A549 cell.

| A549 | IC ₅₀ (μM) | | |
|-------------------------------|-----------------------|-------|-------|
| | n=1 | n=2 | n=3 |
| Ctrl | 100 | 100 | 100 |
| Epiremisporine F (1) | 77.44 | 73.73 | 79.98 |
| Epiremisporine G (2) | 56.22 | 49.38 | 51.30 |
| Epiremisporine H (3) | 27.62 | 31.68 | 34.98 |
| 5-FU | 8.20 | 14.91 | 9.58 |