

Electronic Supplementary Information

Two lathyrane diterpenoid stereoisomers containing an unusual *trans-gem*-dimethylcyclopropane from the seeds of *Euphorbia lathyris*

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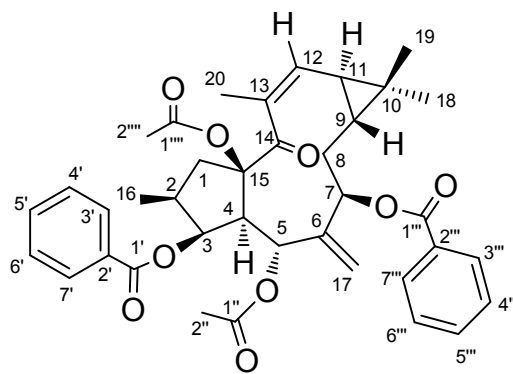
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Chemical structure of **1**

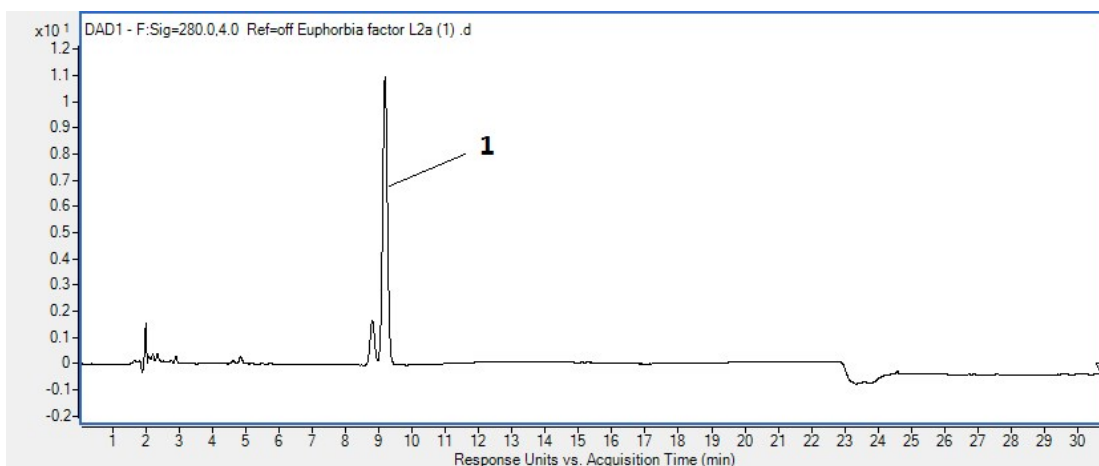


Figure S1. HPLC chromatogram of **1** (UV 280 nm).

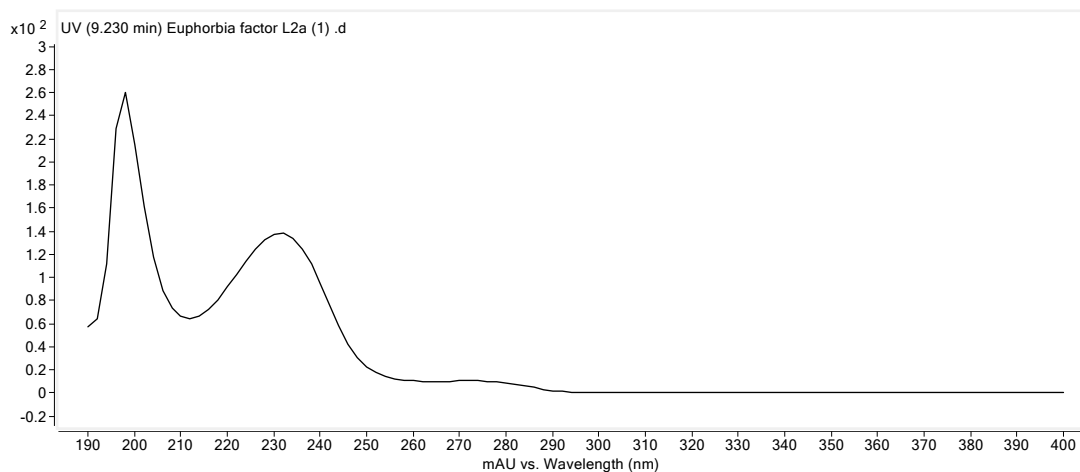


Figure S2. UV spectrum of compound **1**.

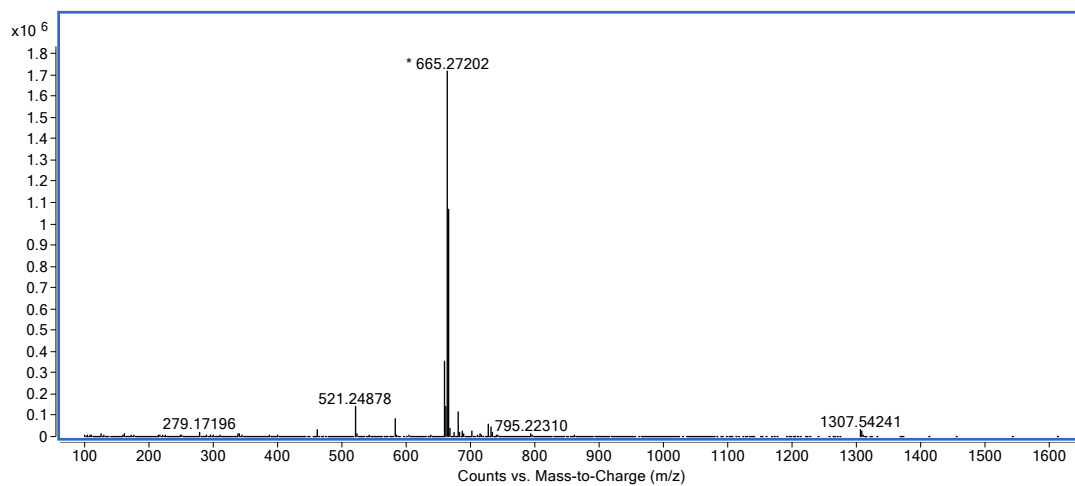


Figure S3. HR-ESI-MS spectrum of 1.

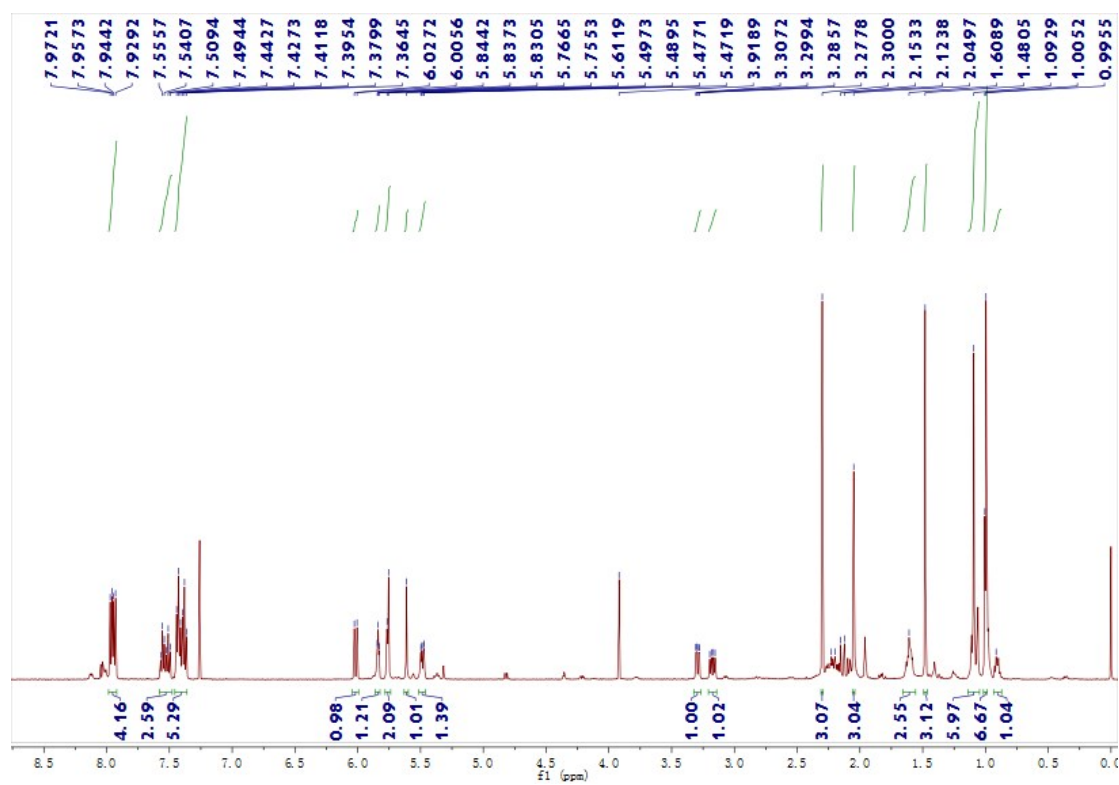


Figure S4. $^1\text{H-NMR}$ spectrum (500 MHz, CDCl_3) of compound 1.

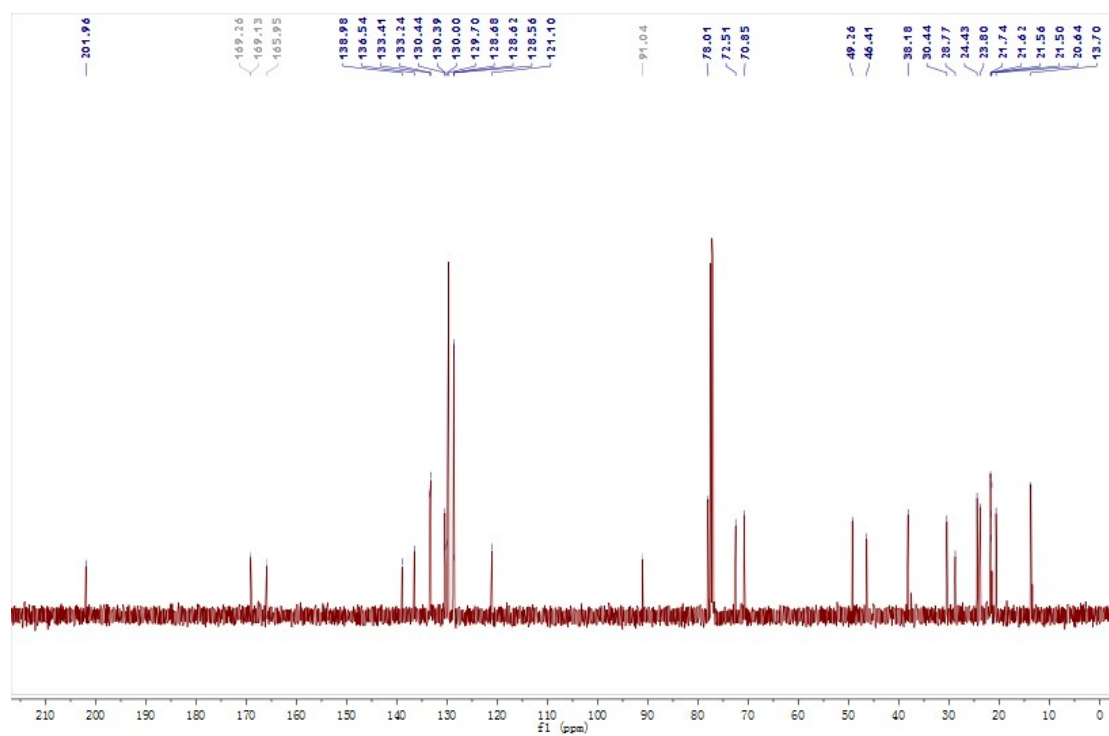


Figure S5. ^{13}C -NMR spectrum (125 MHz, CDCl_3) of compound **1**.

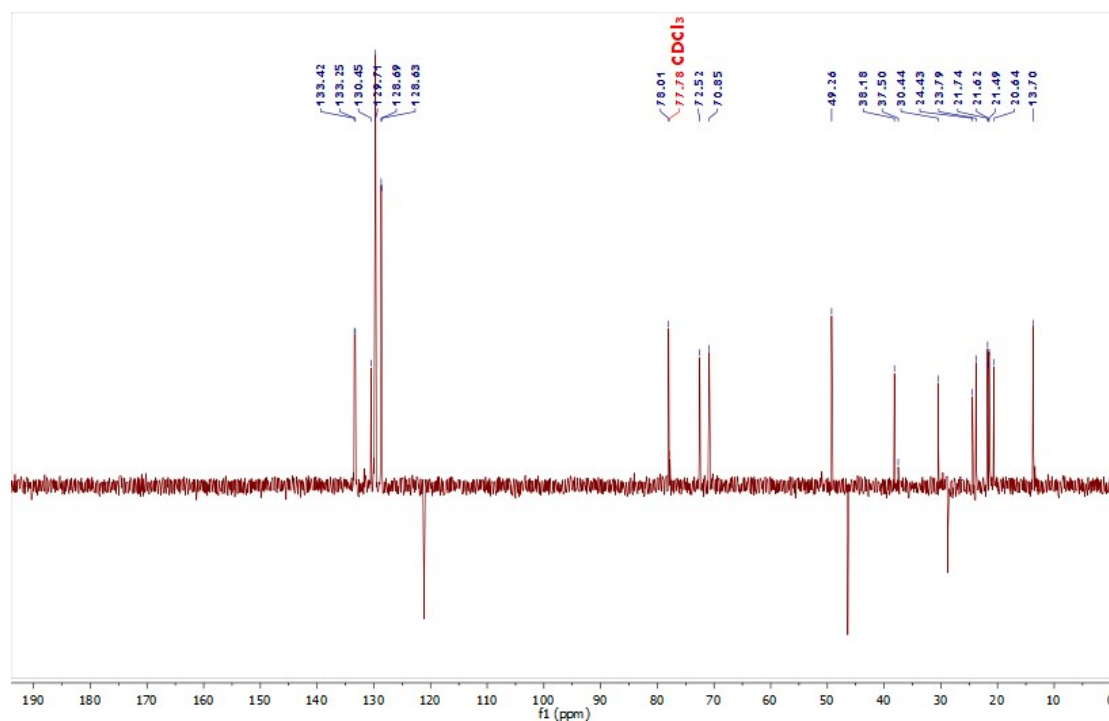


Figure S6. DEPT-135 spectrum (125 MHz, CDCl_3) of compound **1**.

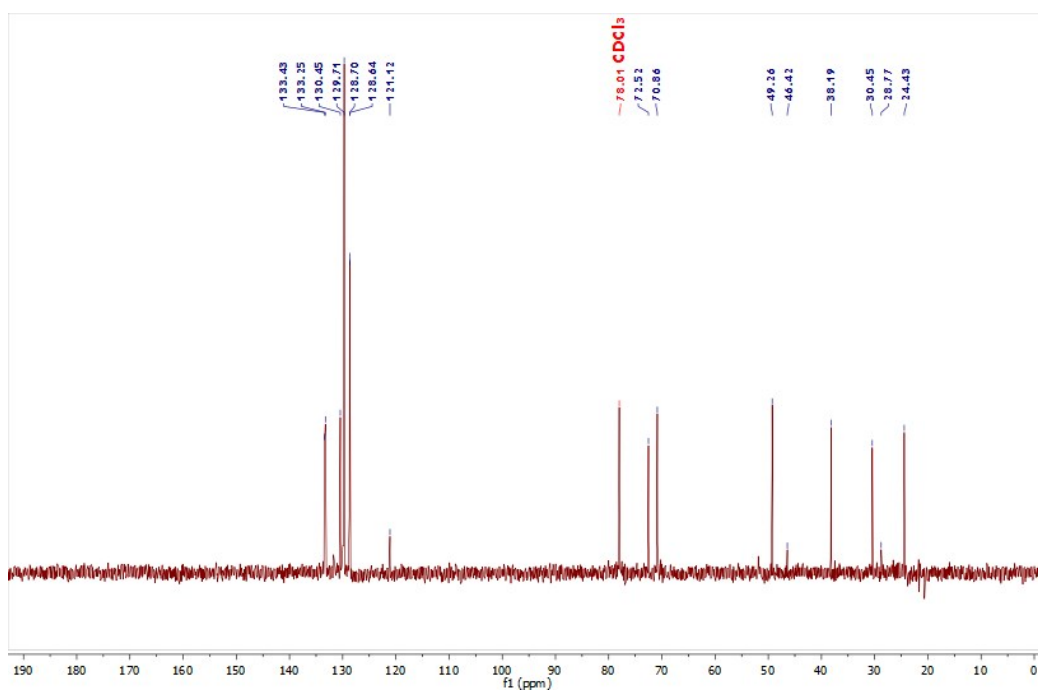


Figure S7. DEPT-90 spectrum (125 MHz, CDCl_3) of compound **1**.

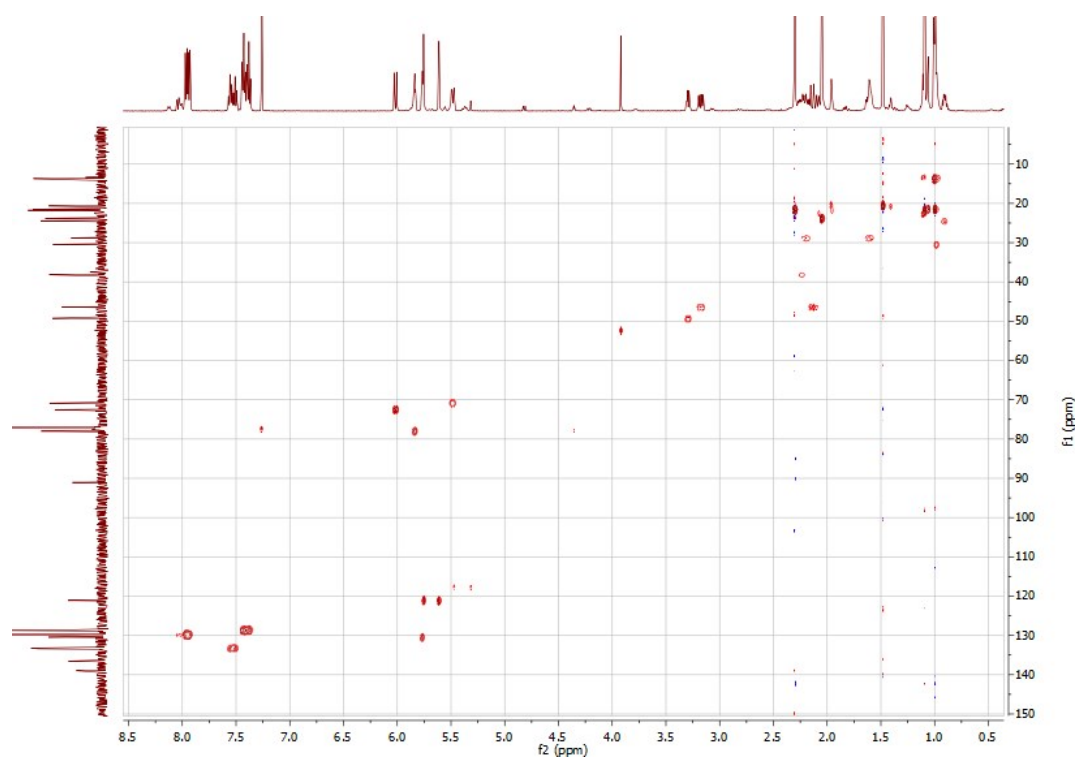


Figure S8. HSQC spectrum (500 MHz, CDCl_3) of compound **1**.

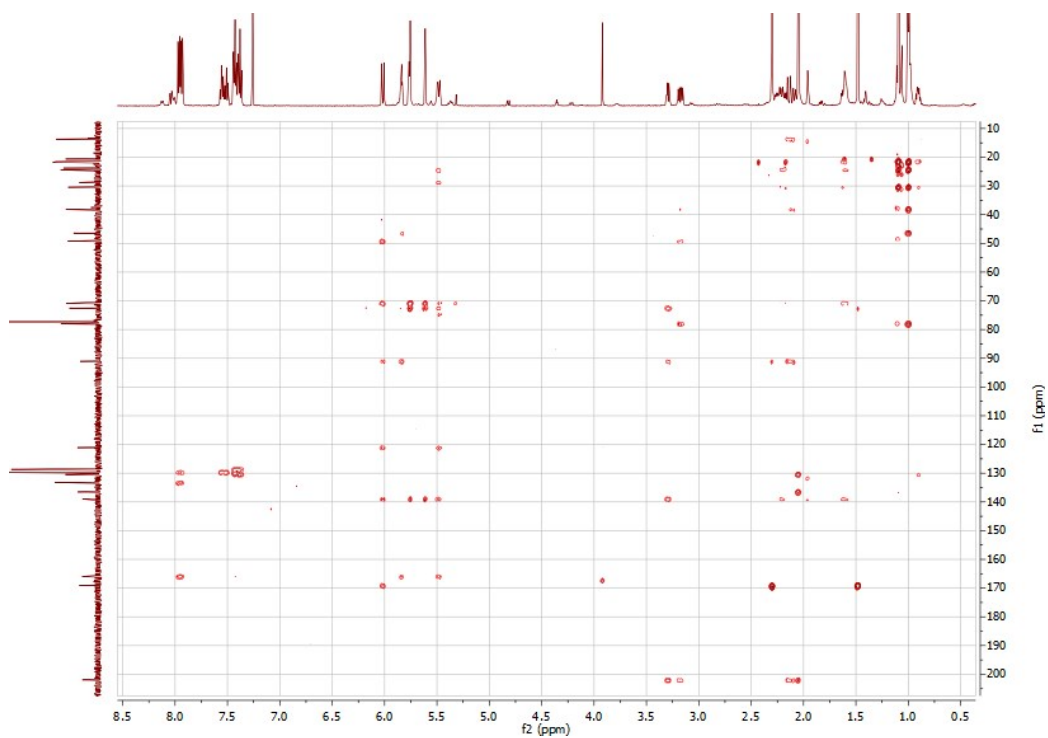


Figure S9. HMBC spectrum (500 MHz, CDCl₃) of compound **1**.

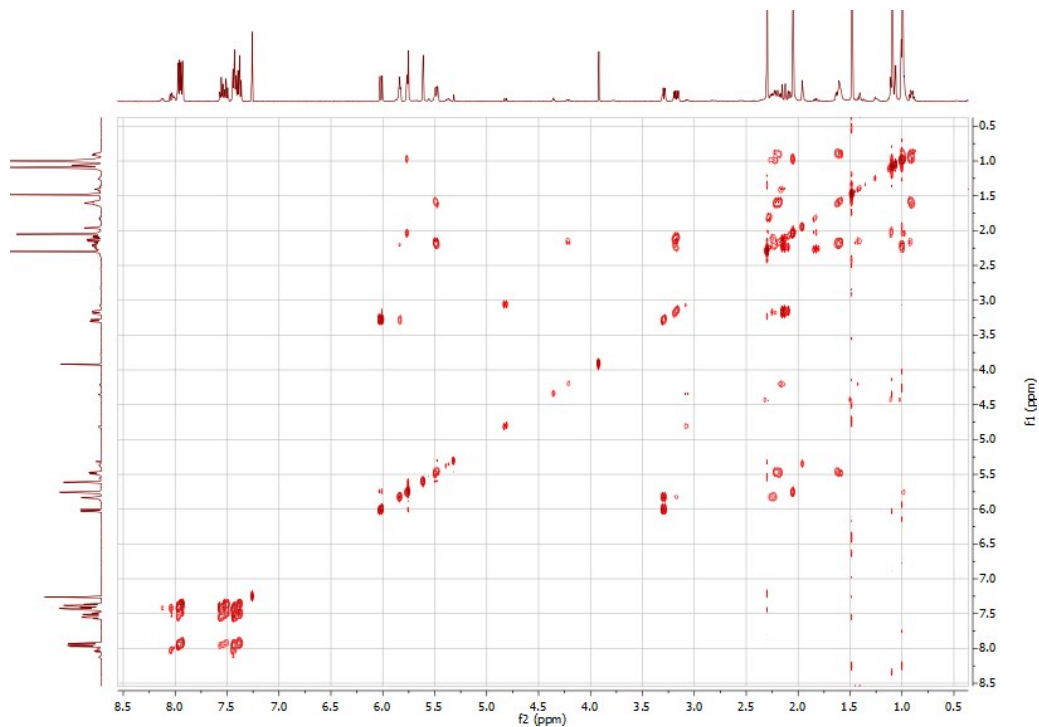


Figure S10. ¹H - ¹H COSY spectrum (500 MHz, CDCl₃) of compound **1**.

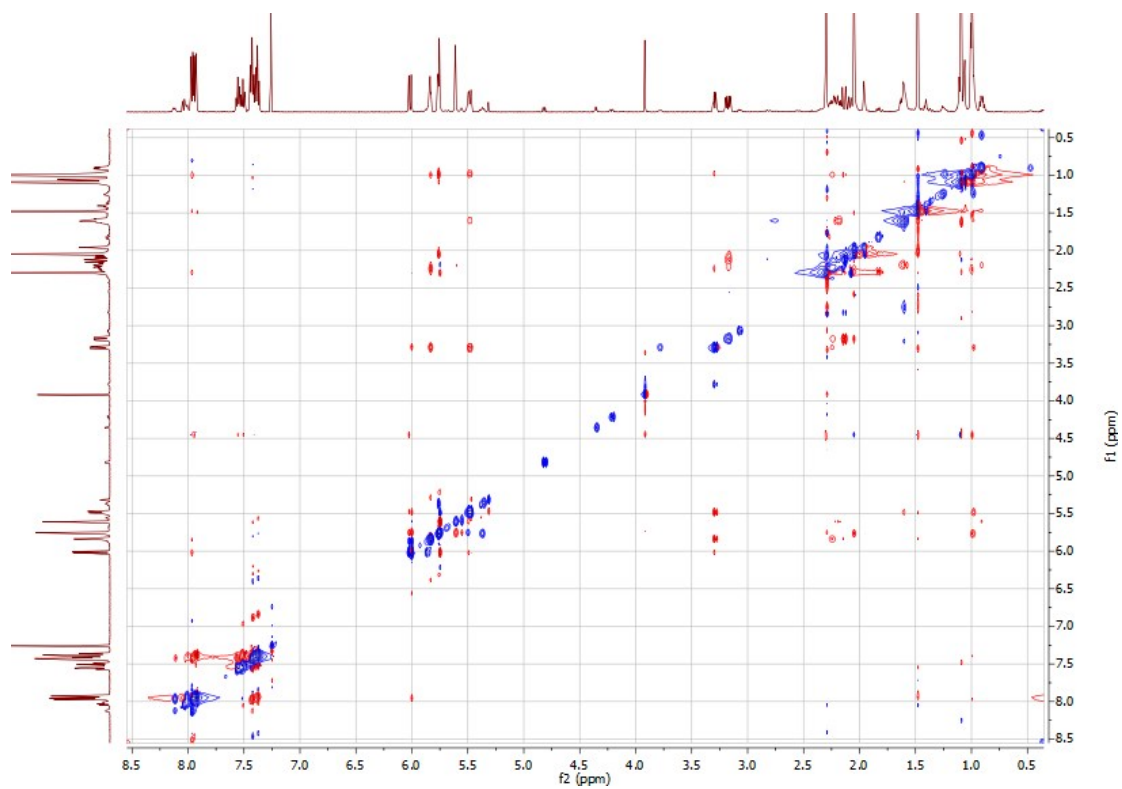
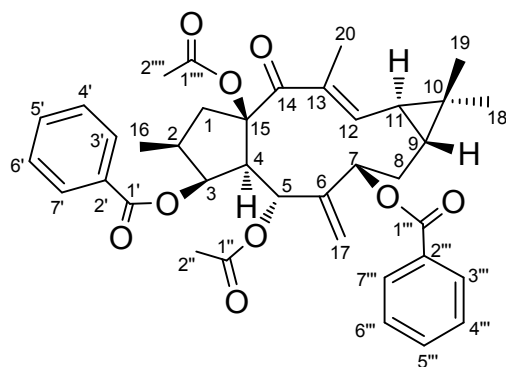


Figure S11. NOESY spectrum (500 MHz, CDCl₃) of compound **1**.



Chemical structure of **2**

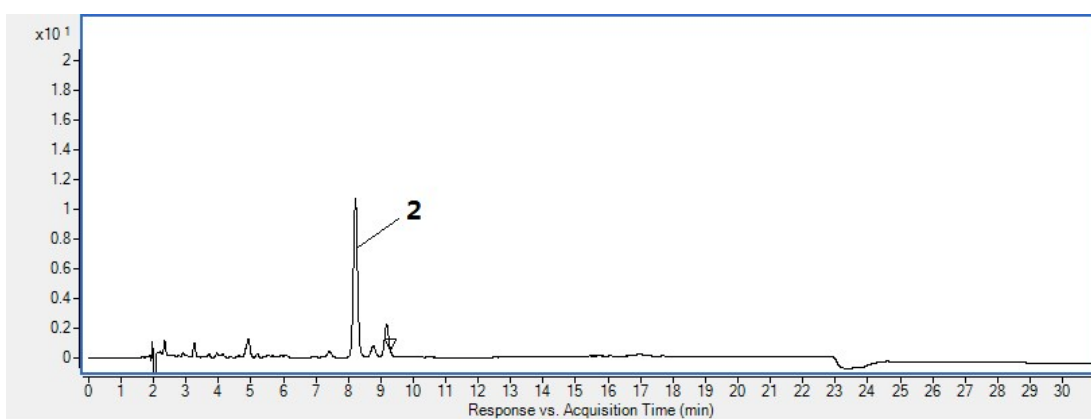


Figure S12. HPLC chromatogram of **2** (UV 280 nm).

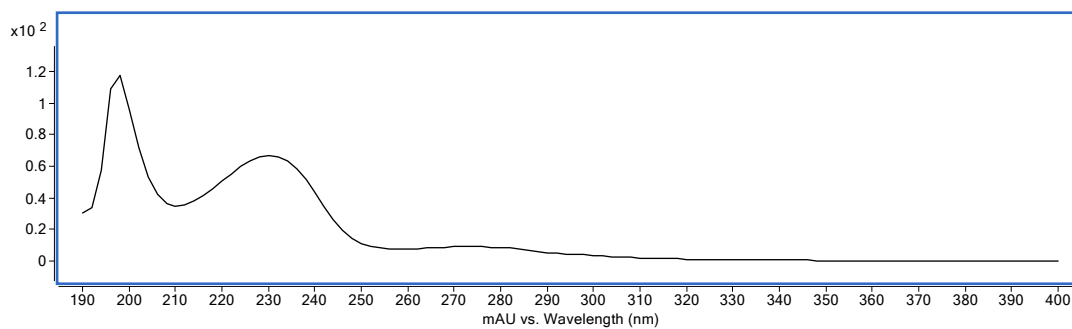


Figure S13. UV spectrum of compound **2**.

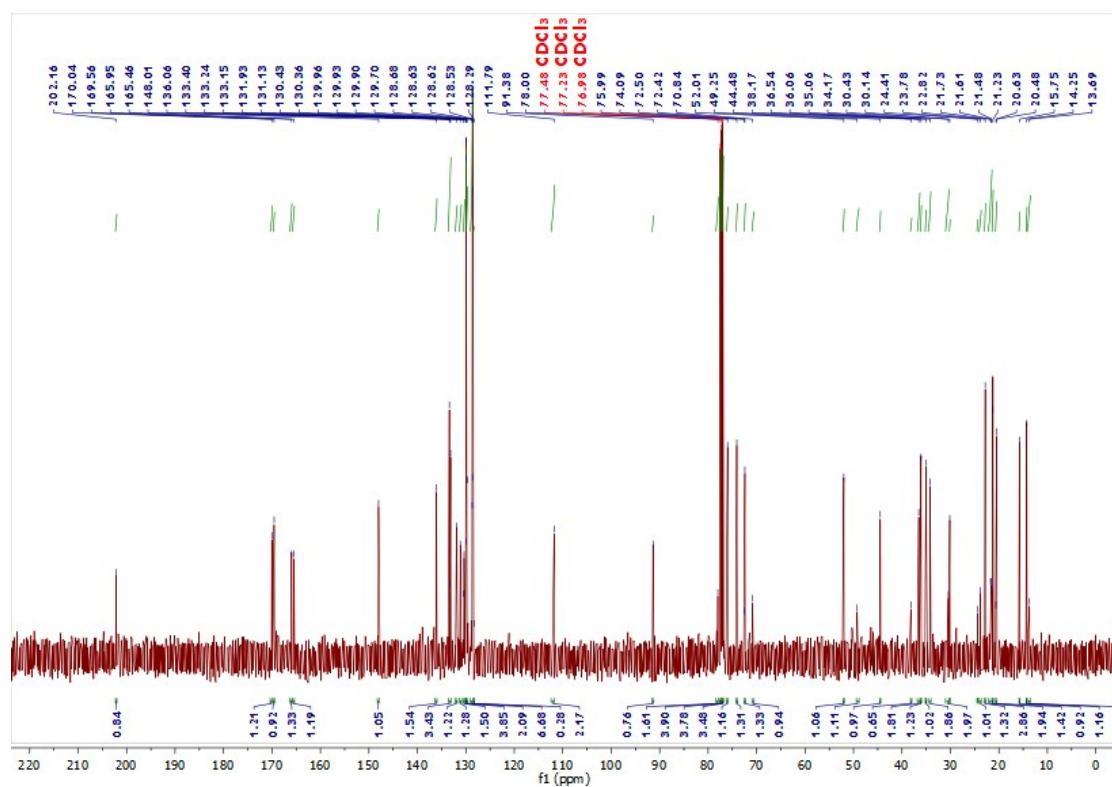


Figure S16. ^{13}C -NMR spectrum (125 MHz, CDCl_3) of compound 2.

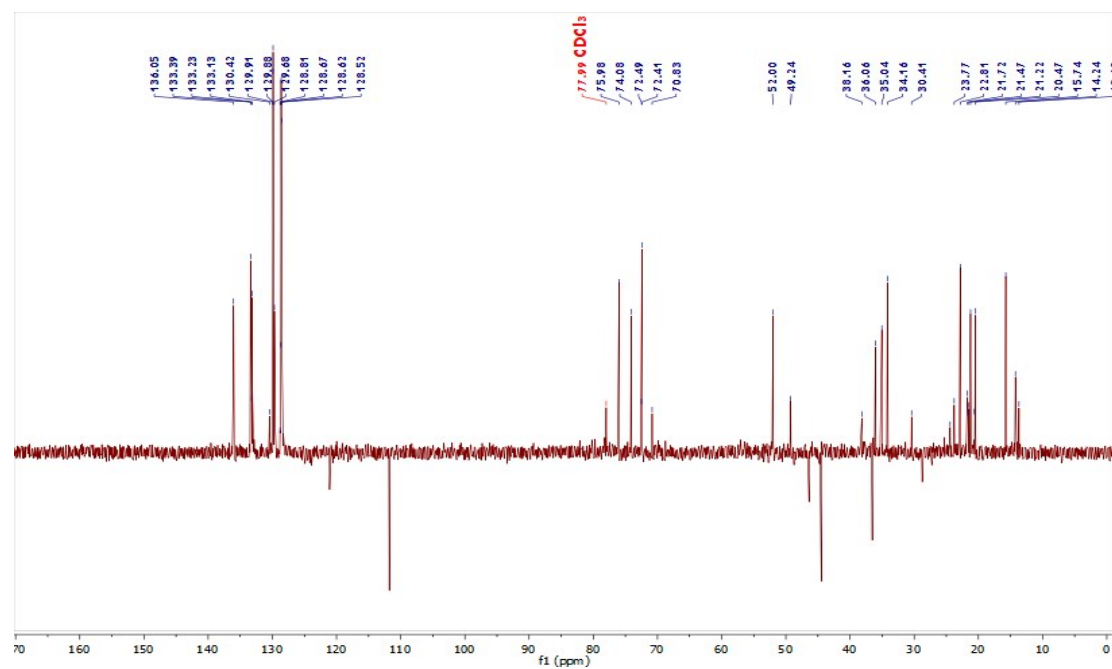


Figure S17. DEPT-135 spectrum (125 MHz, CDCl_3) of compound 2.

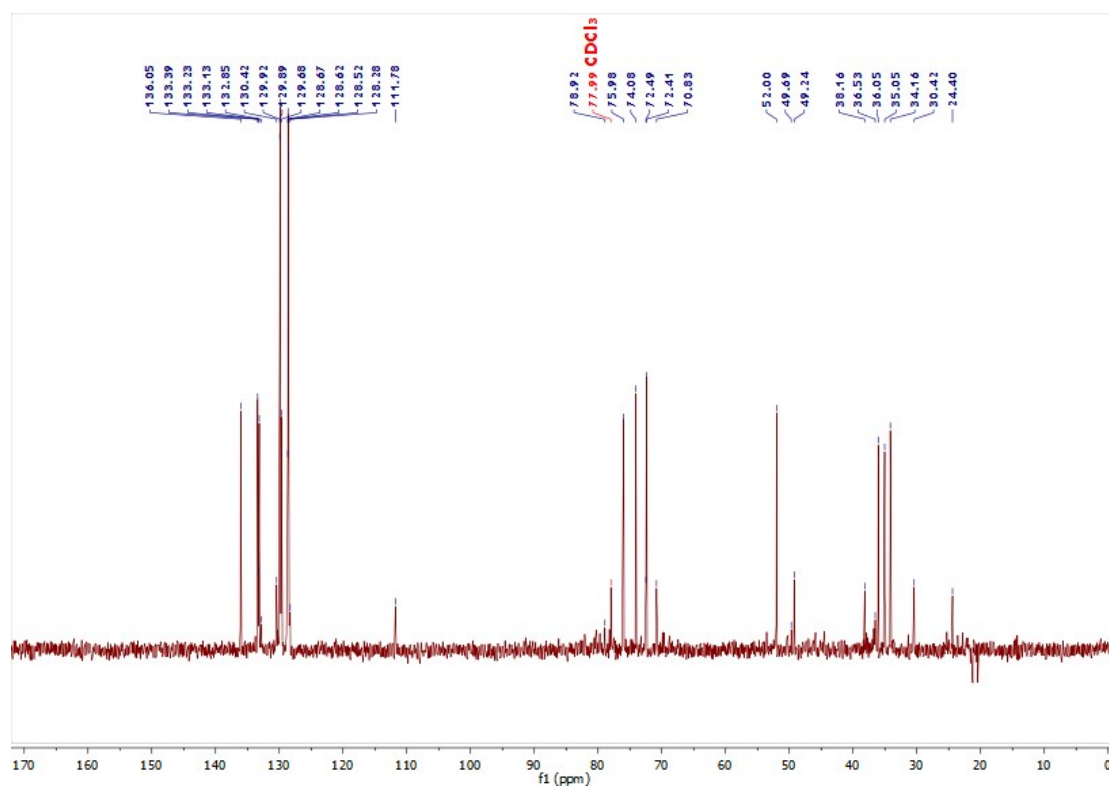


Figure S18. DEPT-90 spectrum (125 MHz, CDCl_3) of compound **2**.

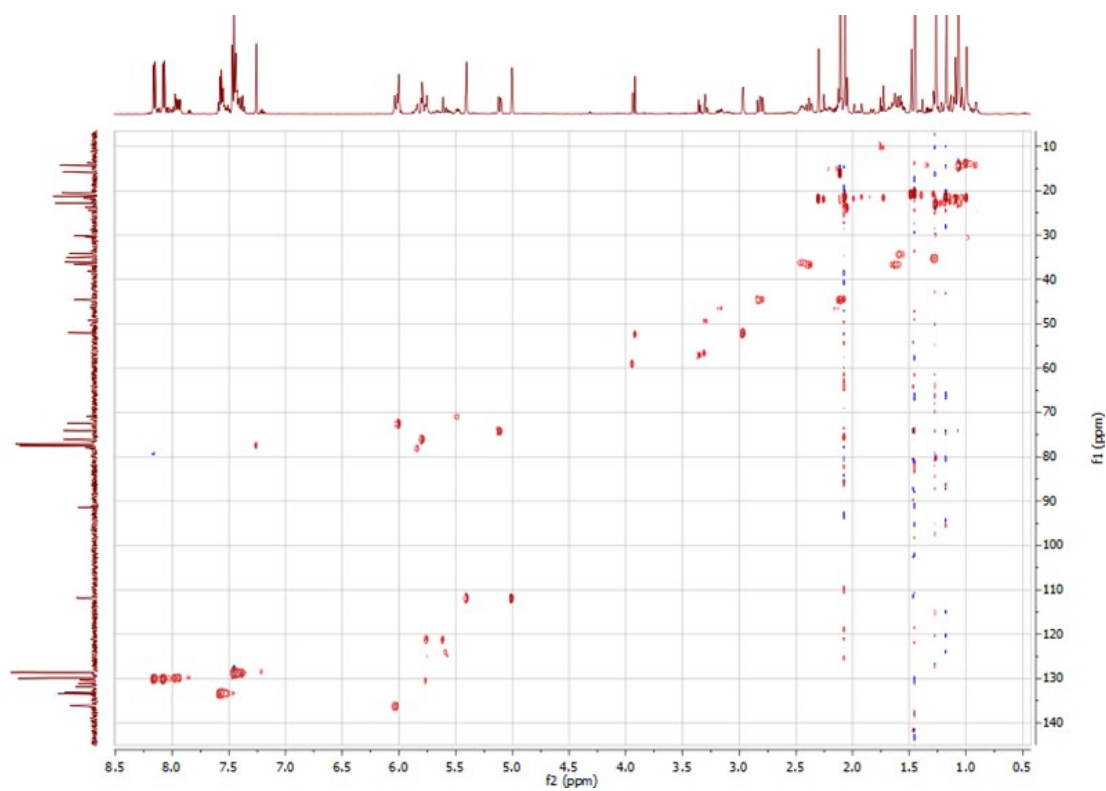


Figure S19. HSQC spectrum (500 MHz, CDCl_3) of compound **2**.

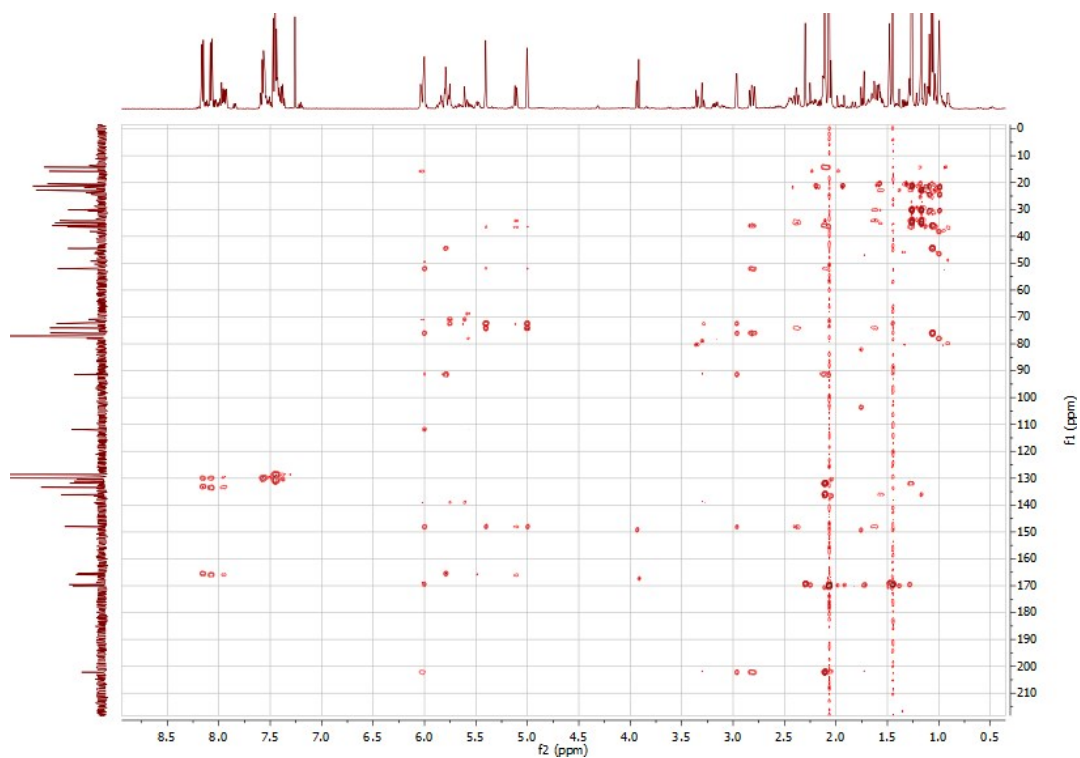


Figure S20. HMBC spectrum (500 MHz, CDCl₃) of compound **2**.

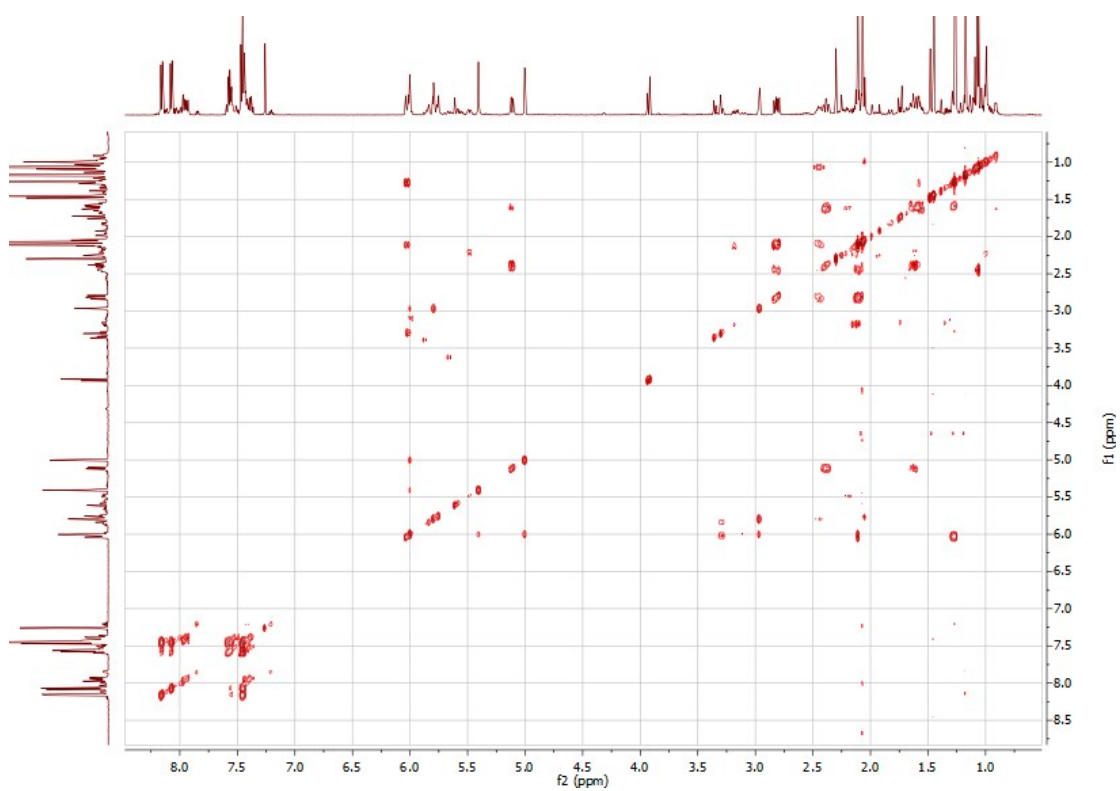


Figure S21. ¹H-¹H COSY spectrum (500 MHz, CDCl₃) of compound **2**.

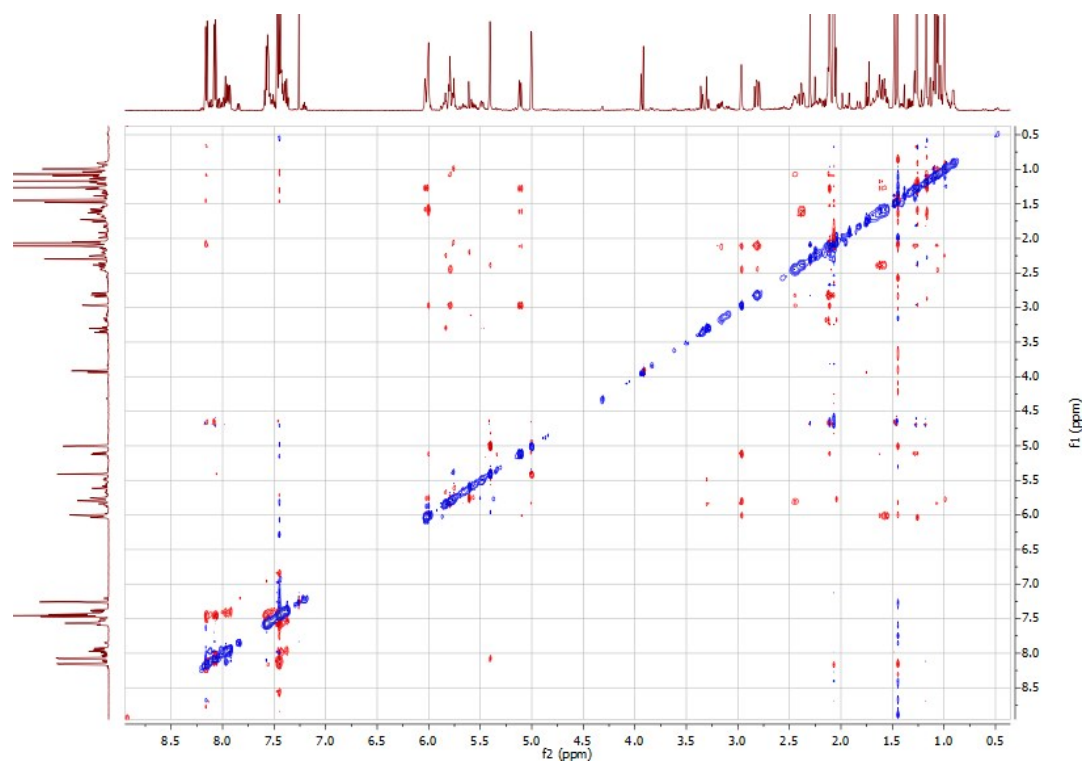
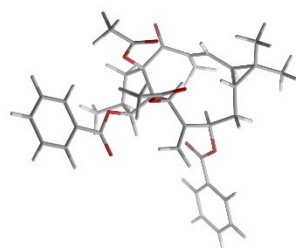
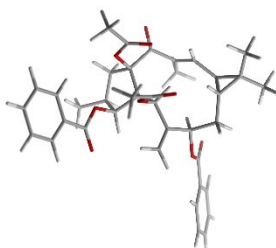


Figure S22. NOESY spectrum (500 MHz, CDCl_3) of compound **2**.

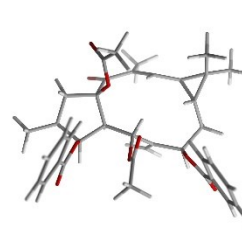
(2S, 3S, 4S, 5R, 7R, 9R, 10R, 15R)-**2**



conf.a ($P = 93.4\%$)

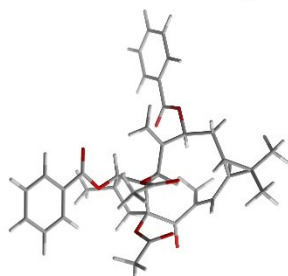


conf.b ($P = 6.4\%$)

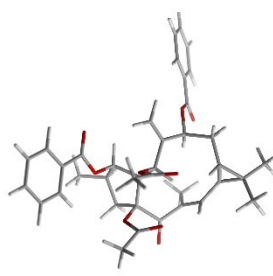


conf.c ($P = 0.2\%$)

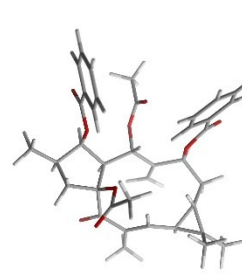
(2R, 3R, 4R, 5S, 7S, 9S, 10S, 15S)-**2**



conf.d ($P = 93.5\%$)

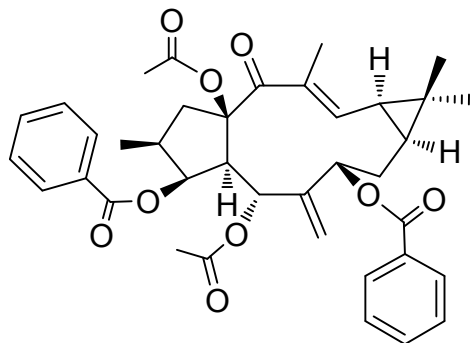


conf.e ($P = 6.4\%$)



conf.f ($P = 0.1\%$)

Figure S23. Relative stable conformers of a pair of enantiomers for compound **2** with their Boltzmann weighting factor.



Chemical structure of **3**

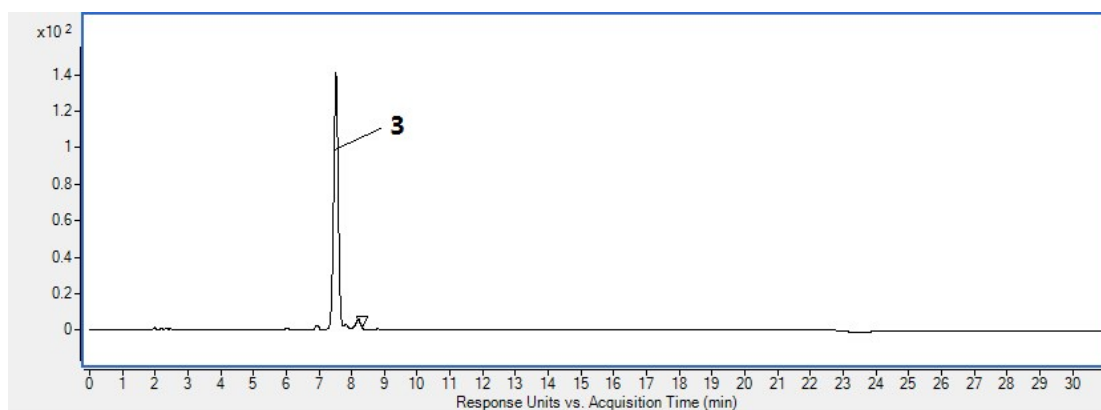


Figure S24. HPLC chromatogram of **3** (UV 280 nm).

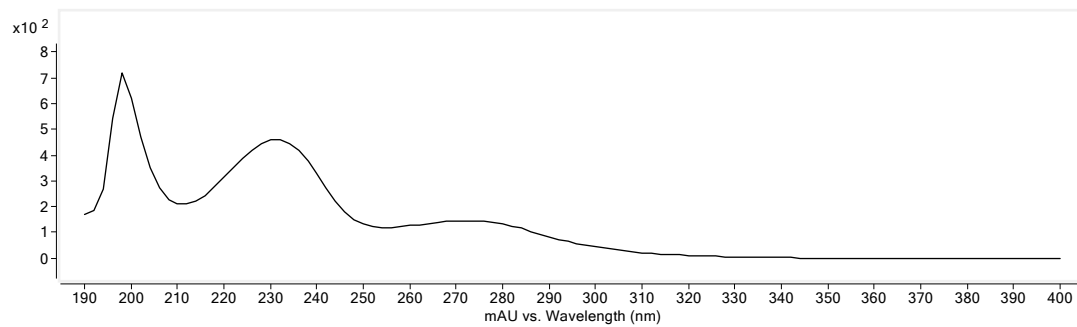


Figure S25. UV spectrum of compound **3**.

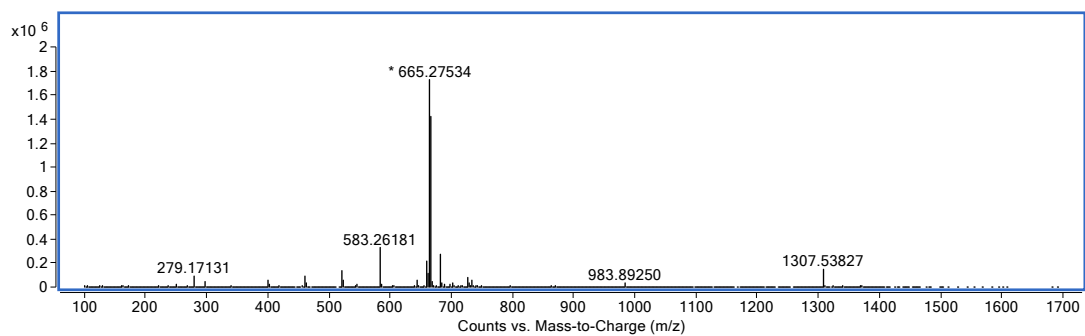


Figure S26. HR-ESI-MS spectrum of compound **3**.

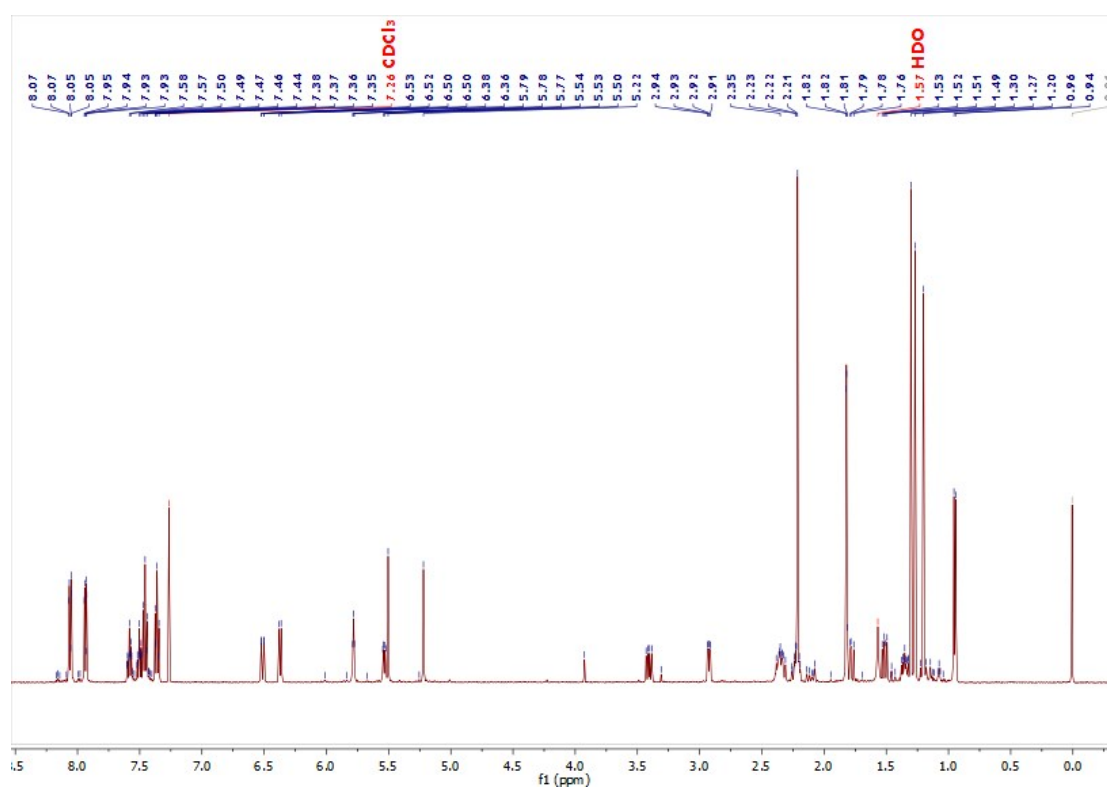


Figure S27. $^1\text{H-NMR}$ spectrum (300 MHz, CDCl_3) of compound **3**.

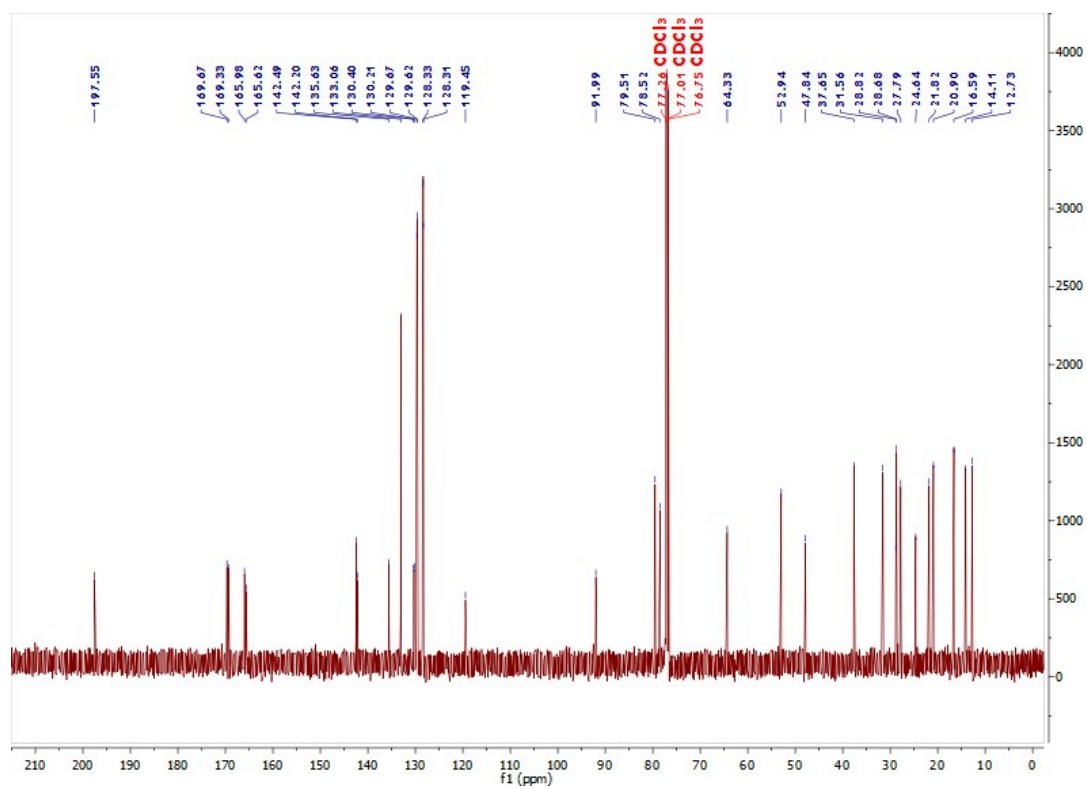


Figure S28. ^{13}C -NMR spectrum (75 MHz, CDCl_3) of compound 3.