

Supplementary Materials

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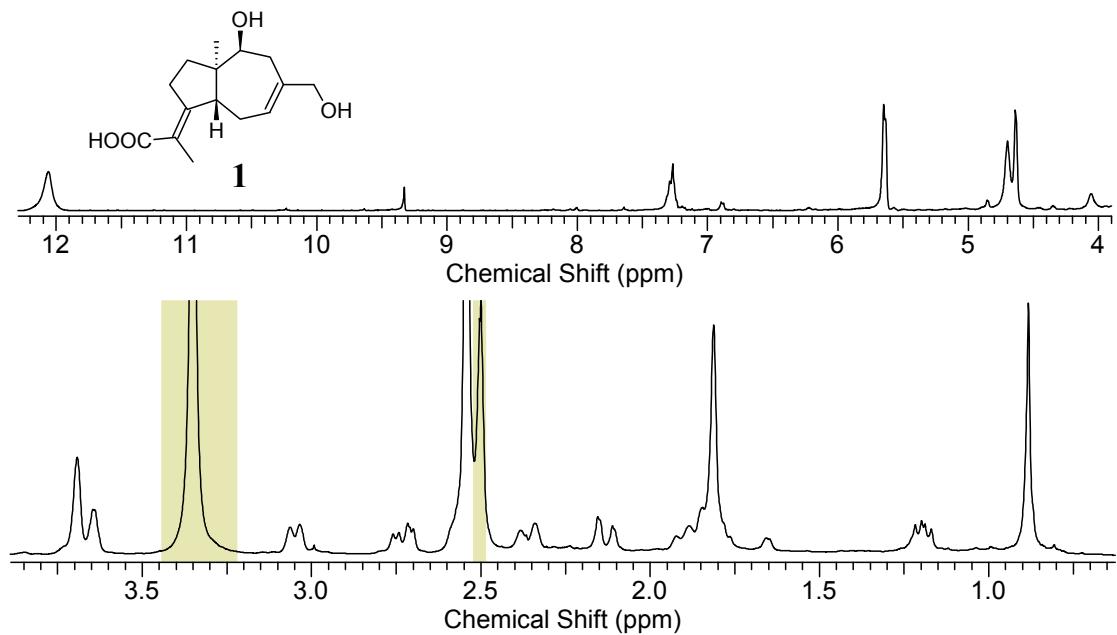


Figure S1. ¹H-NMR spectrum of compound 1.

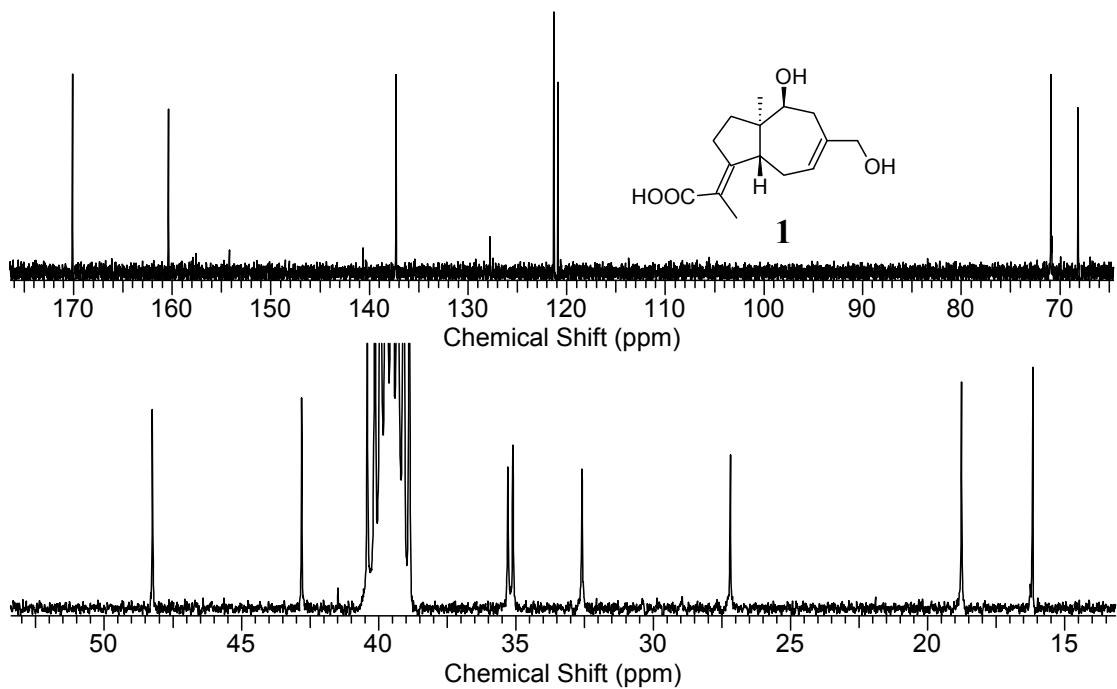


Figure S2. ¹³C-NMR spectrum of compound 1.

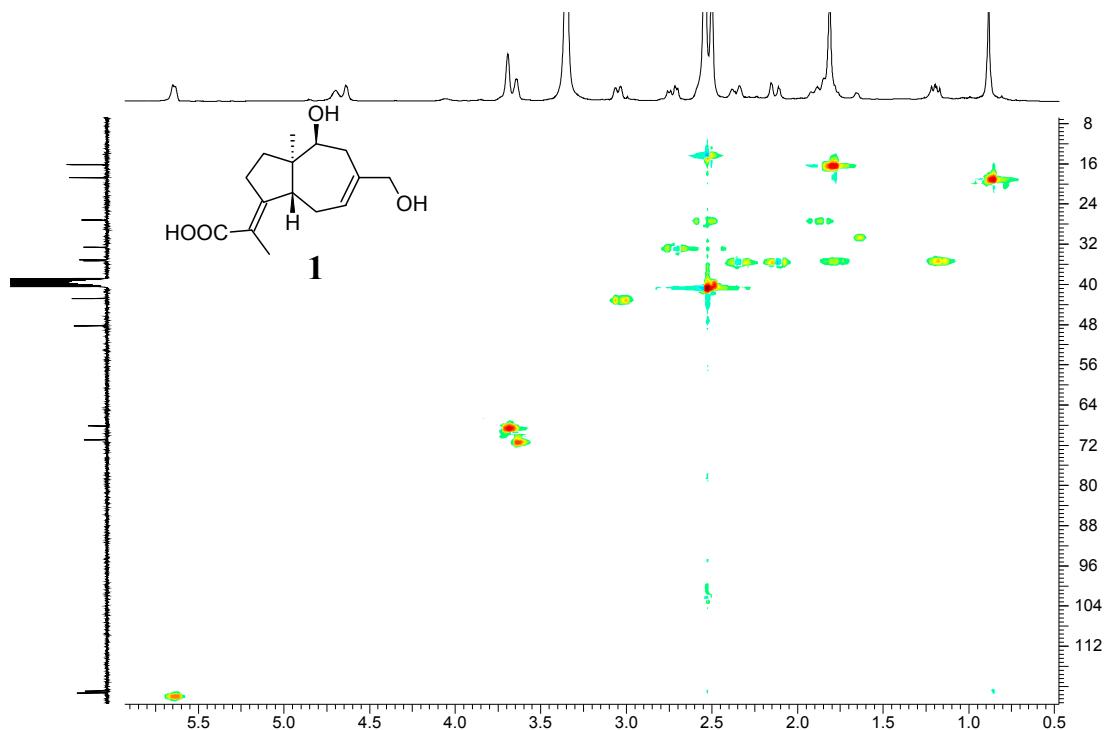


Figure S3. HMQC spectrum of compound 1.

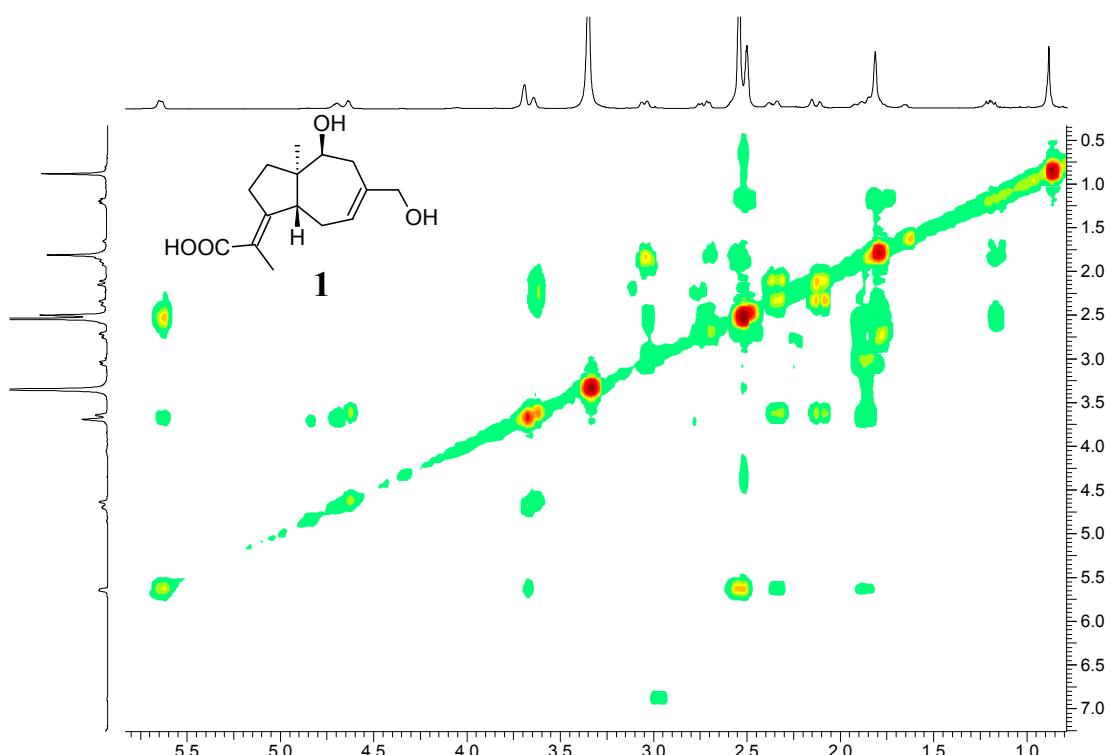


Figure S4. COSY spectrum of compound 1.

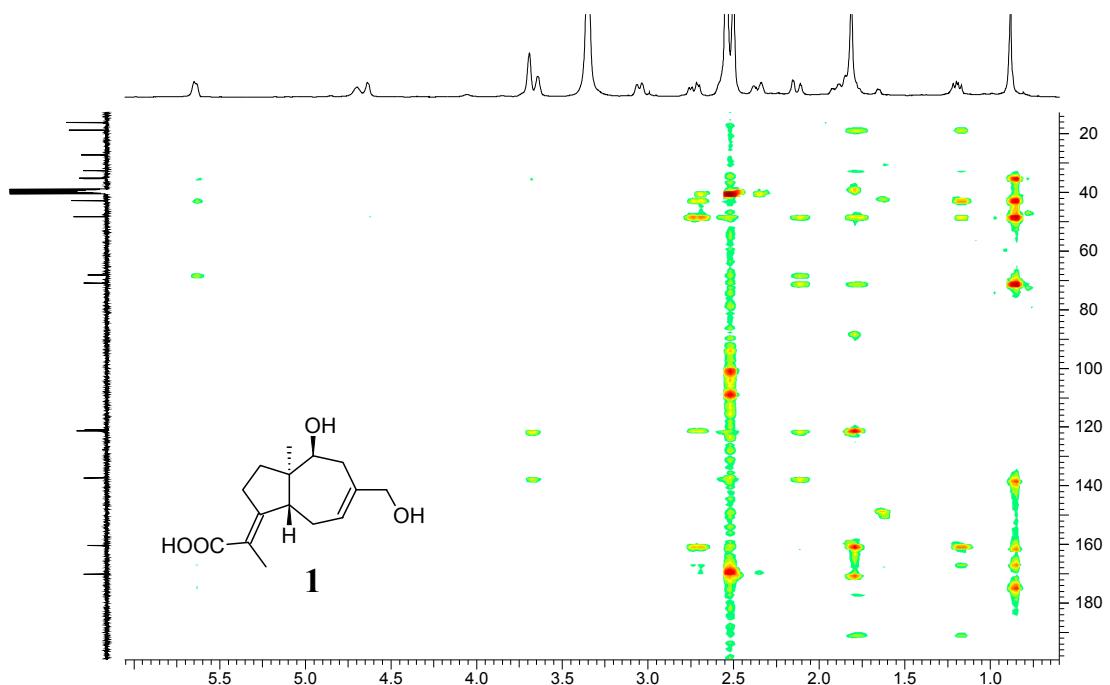


Figure S5. HMBC spectrum of compound **1**.

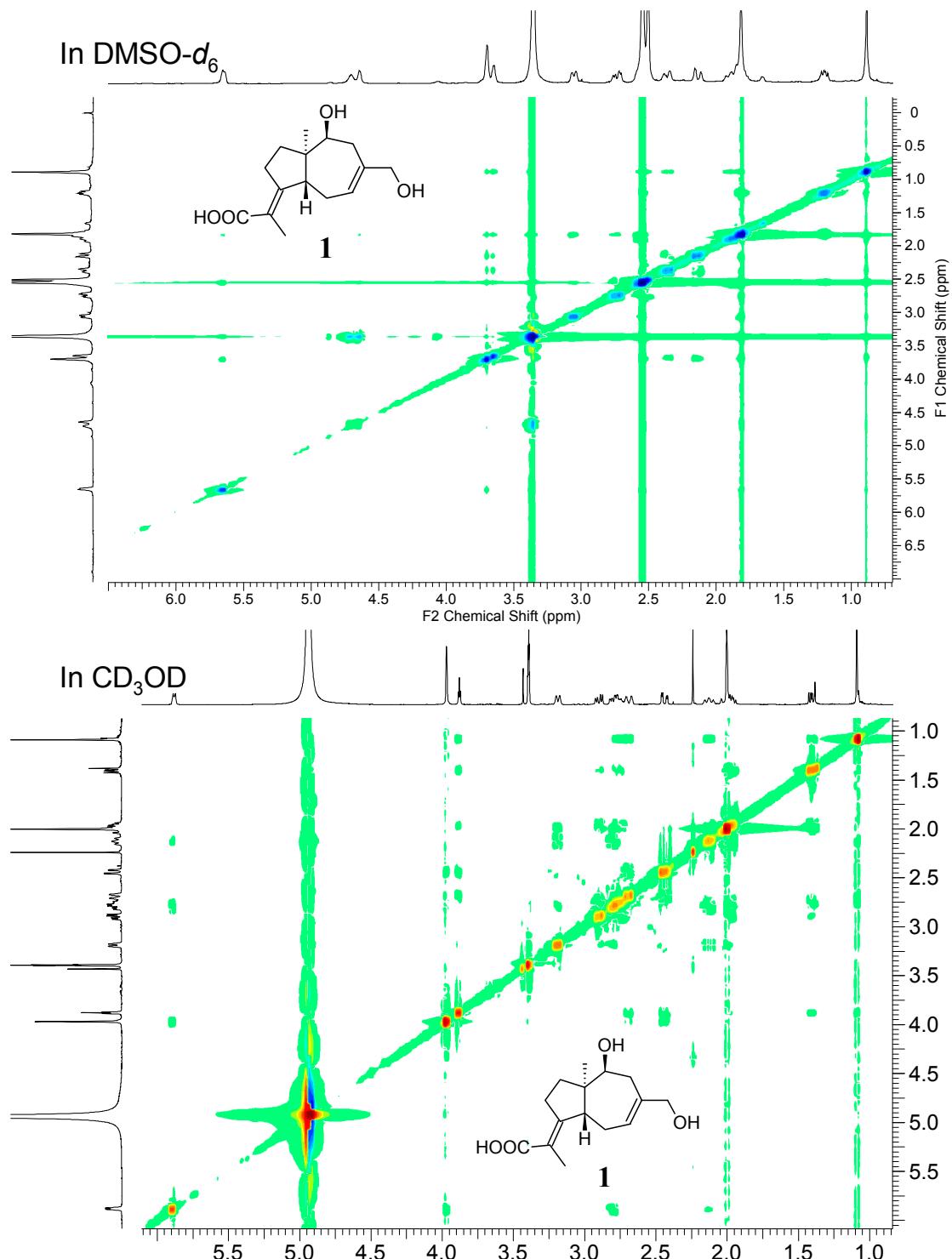


Figure S6. NOESY spectrum of compound **1** (in $\text{DMSO}-d_6$ and CD_3OD).

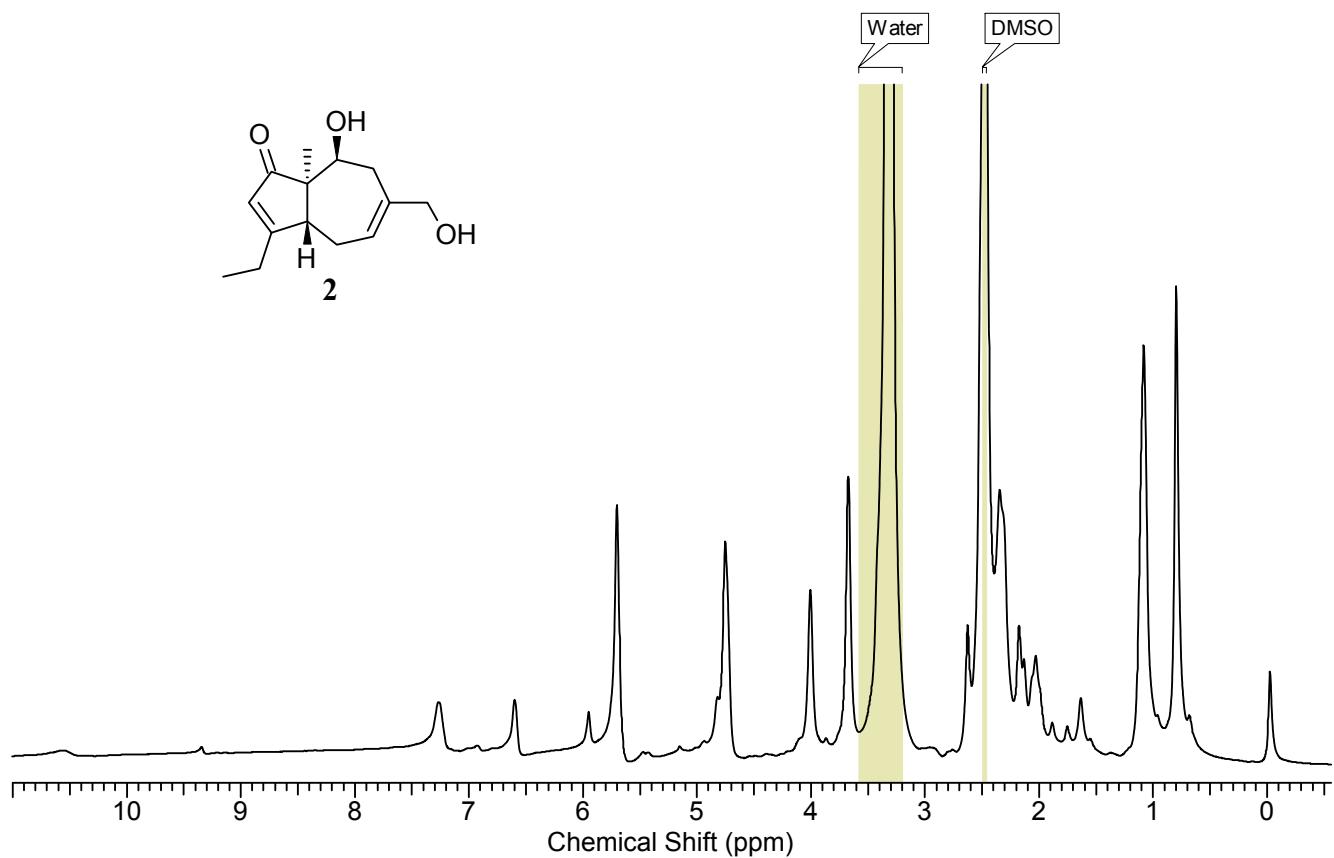


Figure S7. ¹H-NMR spectrum of compound 2.

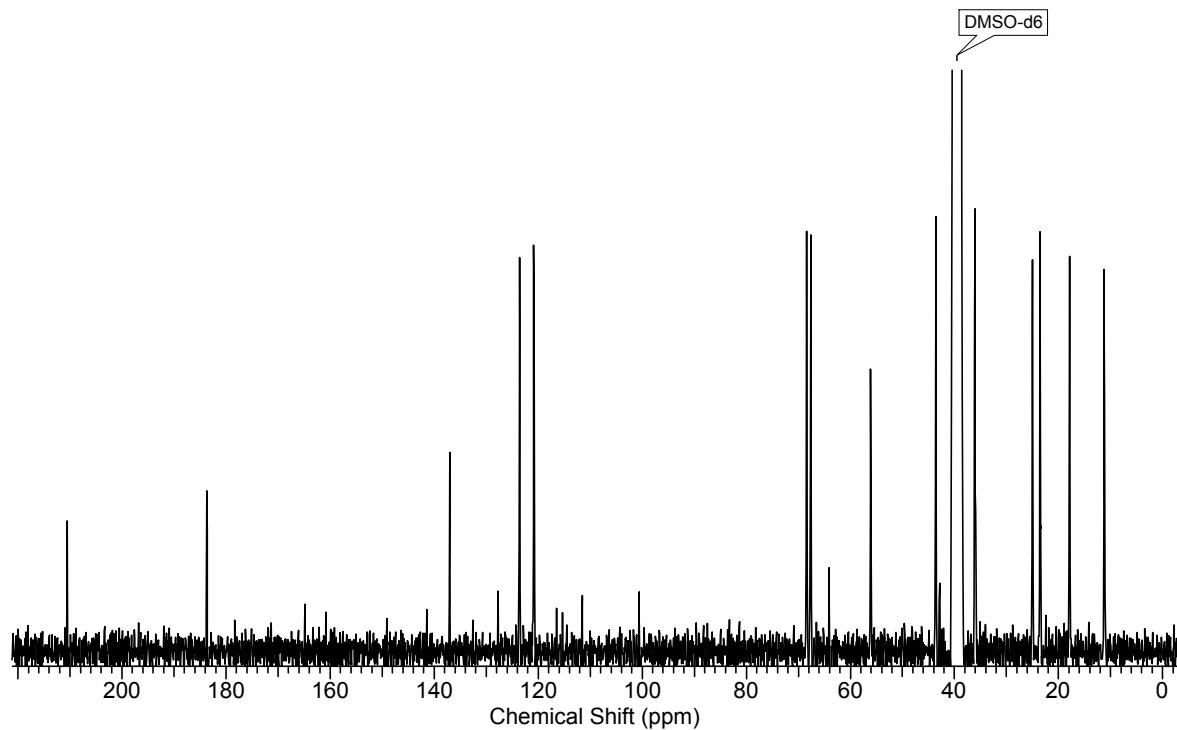


Figure S8. ¹³C-NMR spectrum of compound 2.

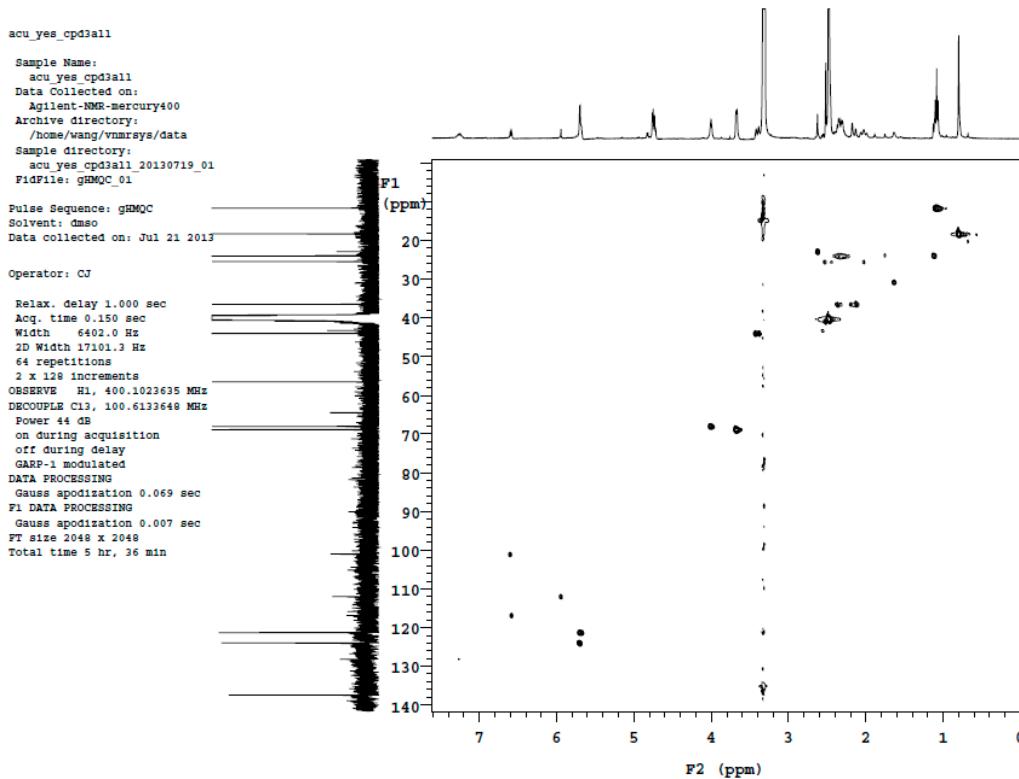


Figure S9. HMQC spectrum of compound 2.

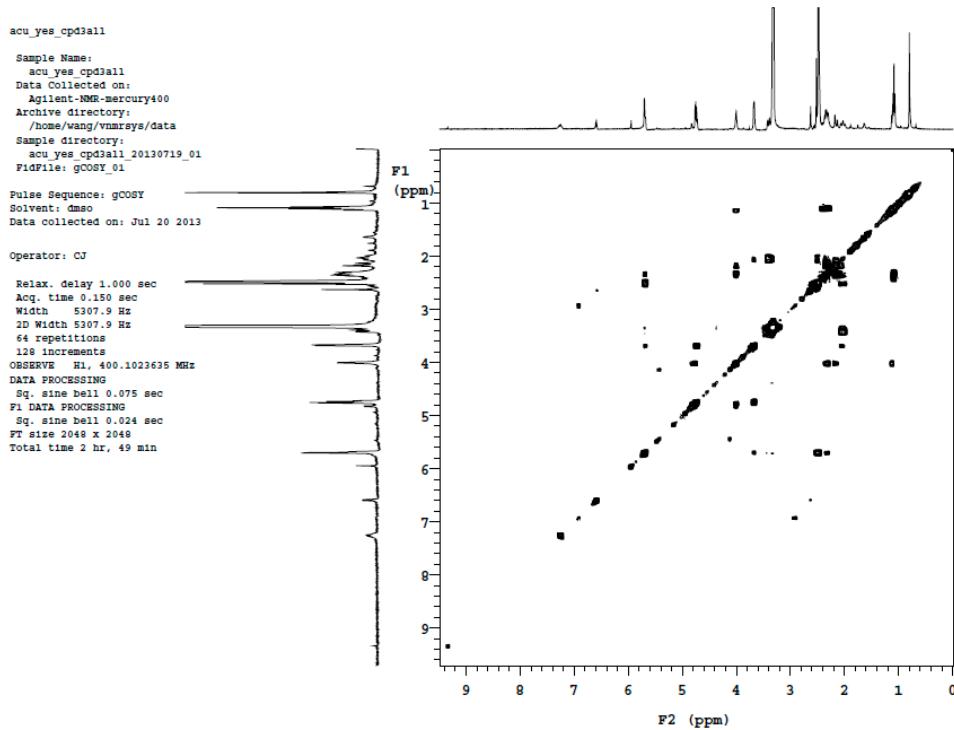


Figure S10. COSY spectrum of compound 2.

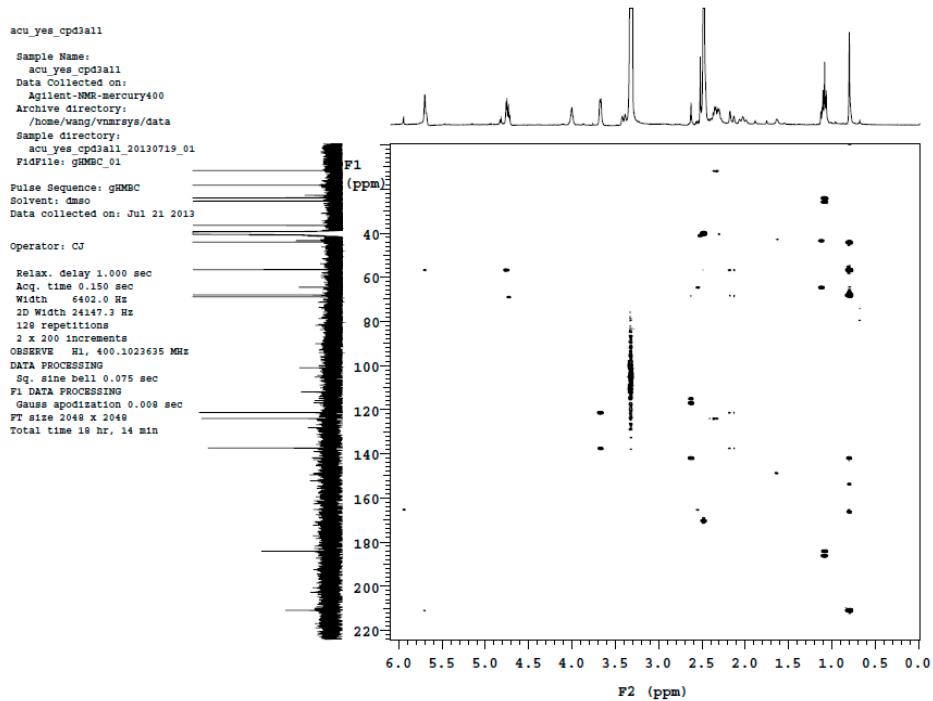


Figure S11. HMBC spectrum of compound 2.

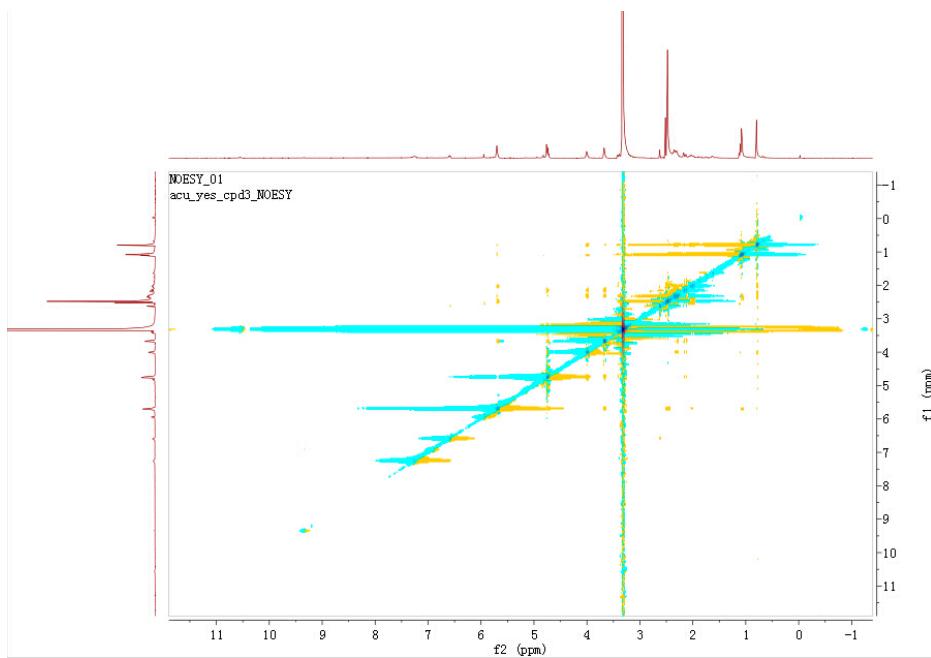


Figure S12. NOESY spectrum of compound 2.

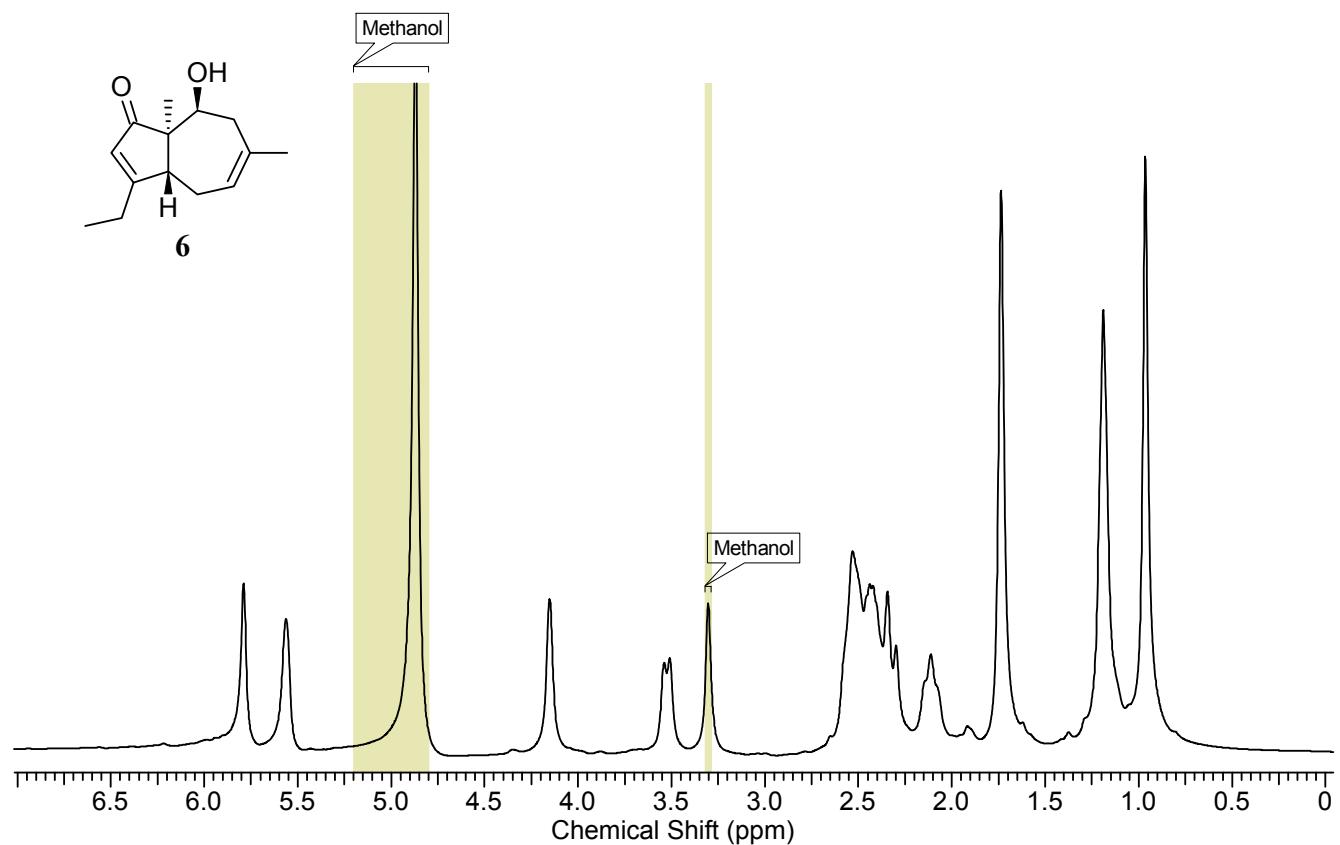


Figure S13. ¹H-NMR spectrum of compound 6.

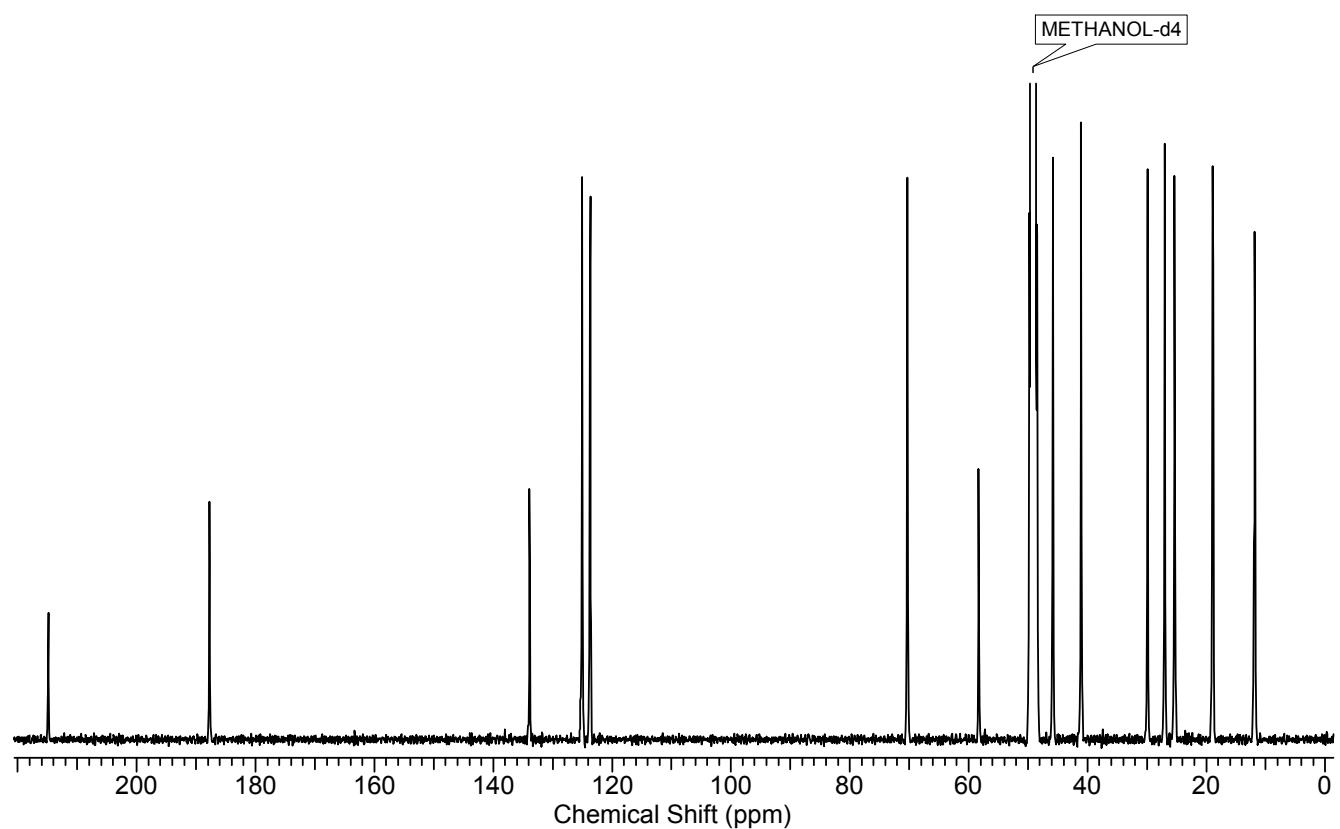


Figure S14. ¹³C-NMR spectrum of compound 6.

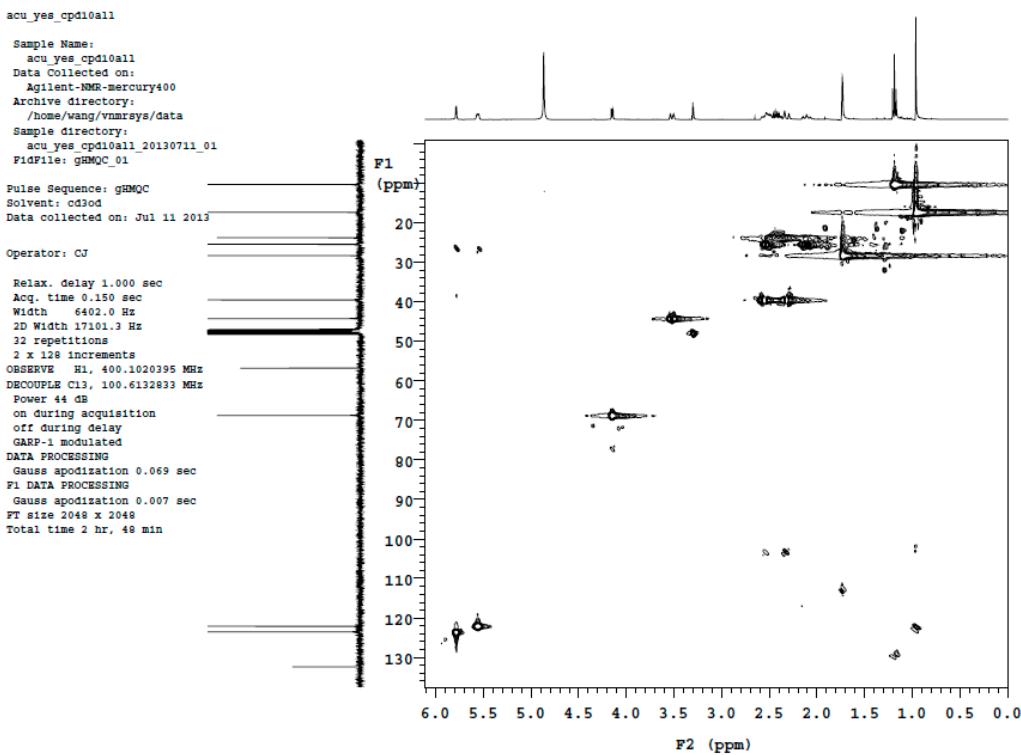


Figure S15. HMQC spectrum of compound 6.

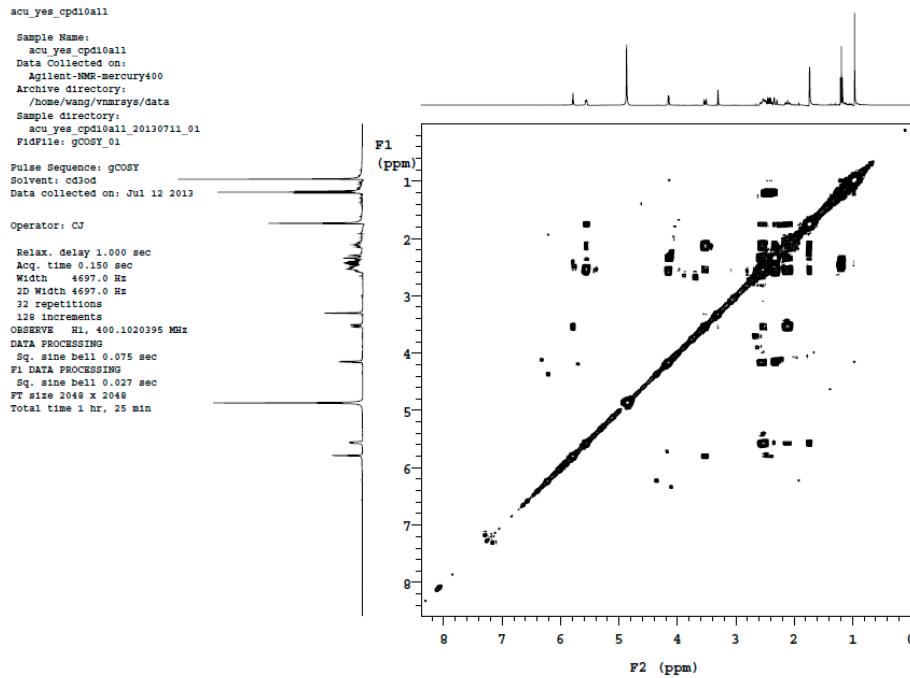


Figure S16. COSY spectrum of compound 6.

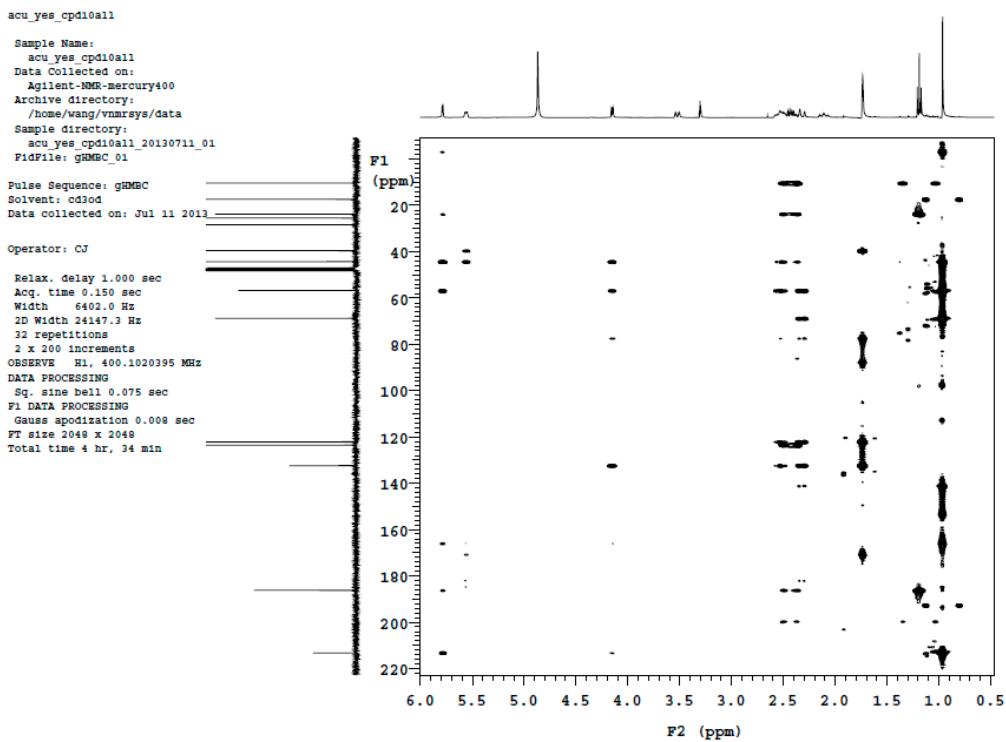


Figure S17. HMBC spectrum of compound 6.

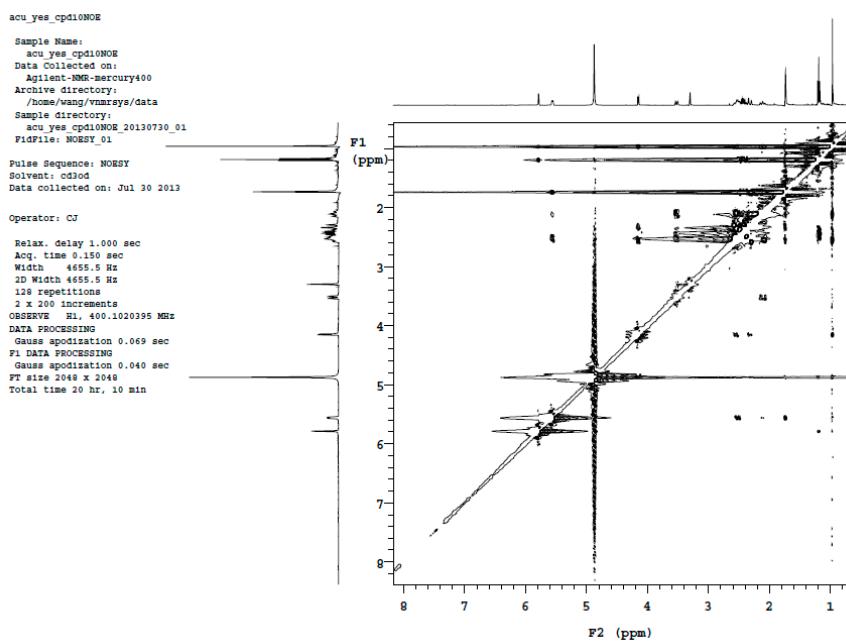


Figure S18. NOESY spectrum of compound 6.

Marfey's Analysis of Compounds 3 and 4

The stereochemistry of the proline residue was determined by the advanced Marfey's method.

A solution of **2** or **3** (1.5 mg) in 6 N HCl (1 mL) was heated to 105 °C for 19 h. The solution was then evaporated to dryness and the residue redissolved in H₂O (250 µL). A 50 µL portion of the acid hydrolysate solution was then placed in a 1 mL reaction vial and treated with a 1% solution of 1-fluoro-2,4-dinitrophenyl-5-L-alaninamide (L-FDAA) (200 µL) in acetone followed by 1.0 M NaHCO₃ (40 µL). The reaction mixture was heated at 45 °C for 1 h, cooled to room temperature and then acidified with 2.0 M HCl (20 µL). In a similar fashion, the standard D- and L-Pro were derivatized with FDAA separately. The FDAA derivatives of the hydrolysates and standard amino acids were subjected to RP-HPLC analysis (Waters C18 column; 5 µm, 4.6 mm × 250 mm; 1.0 mL/min) at 30 °C using the following gradient program: solvent A, H₂O + 0.1% TFA; solvent B, MeCN; linear gradient: 0 min, 25% B, 40 min, 60% B, 30 min, 100% B; UV detection at 340 nm. The retention times for the FDAA derivatives of hydrolysates of **2** or **3** were 14.5 min; standard L-Pro, D-Pro, and were 14.5 and 19.7 min (Figure S19), respectively.

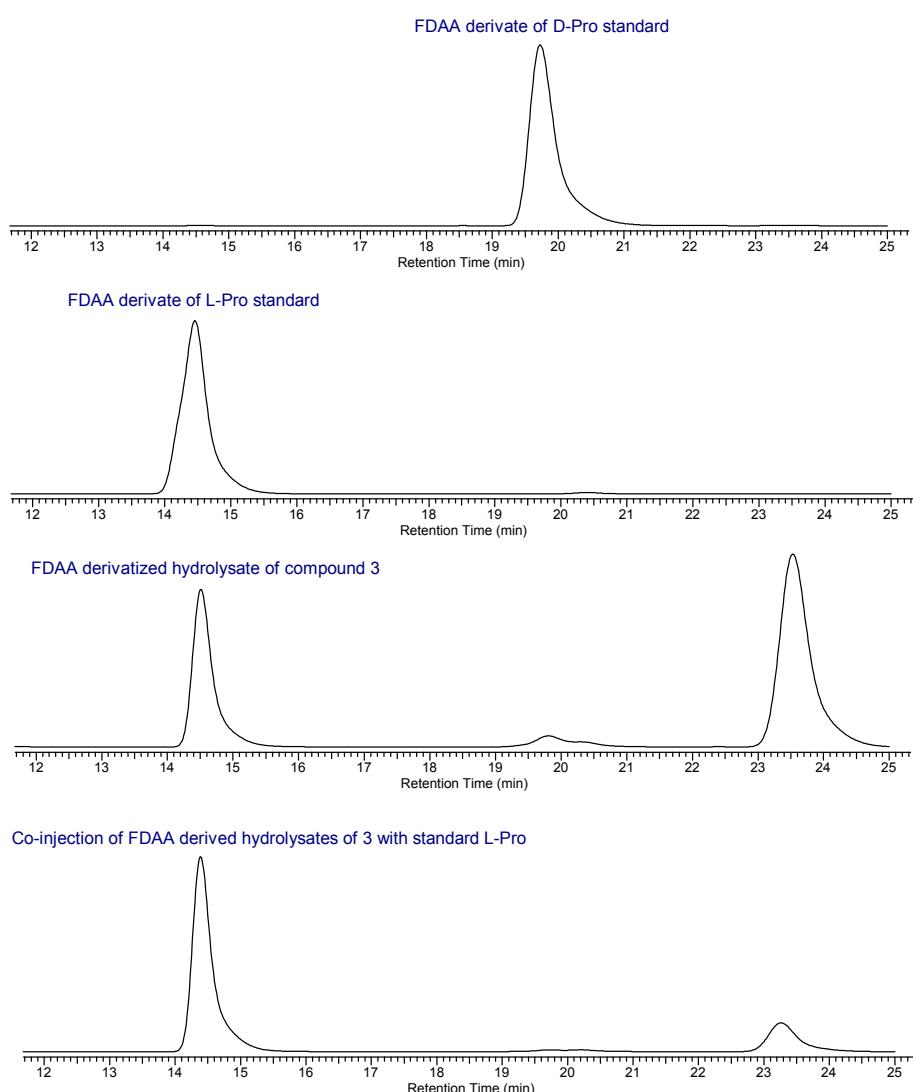


Figure S19. HPLC profile of Marfey's Analysis of Compounds **3** and **4**.