

Supporting Information for

Antibacterial Polyketides from Antarctica Sponge-derived Fungus *Penicillium* sp. HDN151272

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Figure S1. HPLC analysis of the crude of HDN151272.

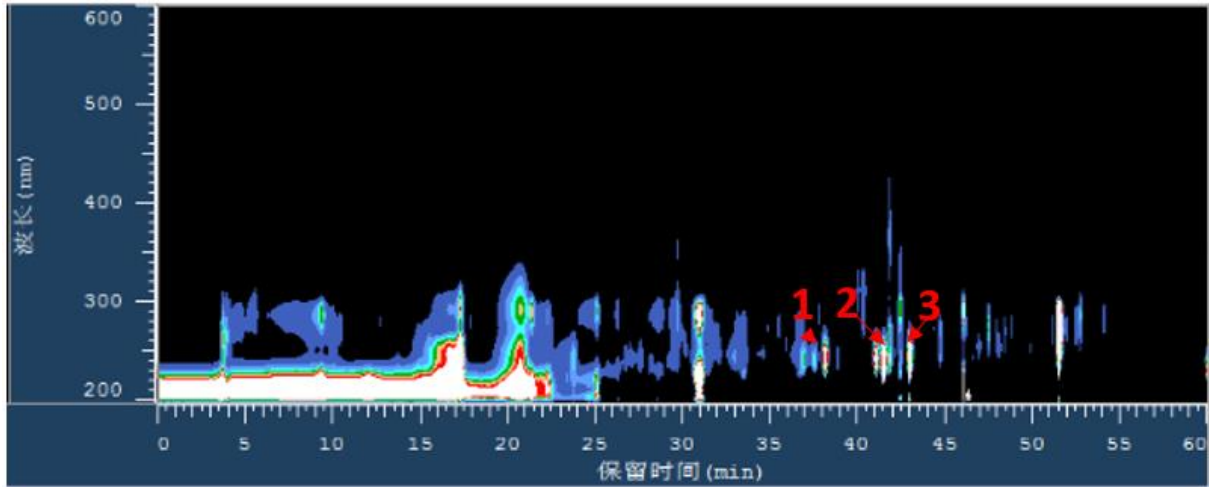


Figure S2. The 18S rDNA sequences data of *Penicillium* sp. HDN151272.

```
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CCGCTGAACTTAAGCATATCAATAAGCGGAGGAA
```

Figure S3. ^1H NMR (500 MHz, $\text{DMSO-}d_6$) spectrum of compound **1**.

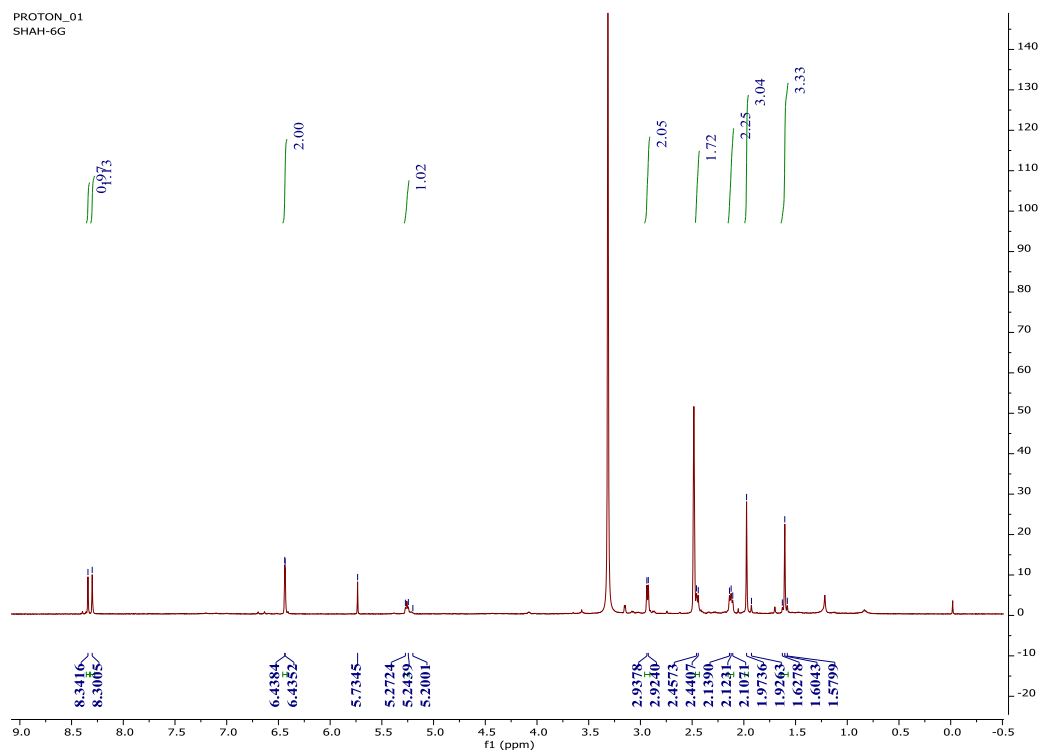


Figure S4. ^{13}C NMR (125 MHz, $\text{DMSO-}d_6$) spectrum of compound **1**.

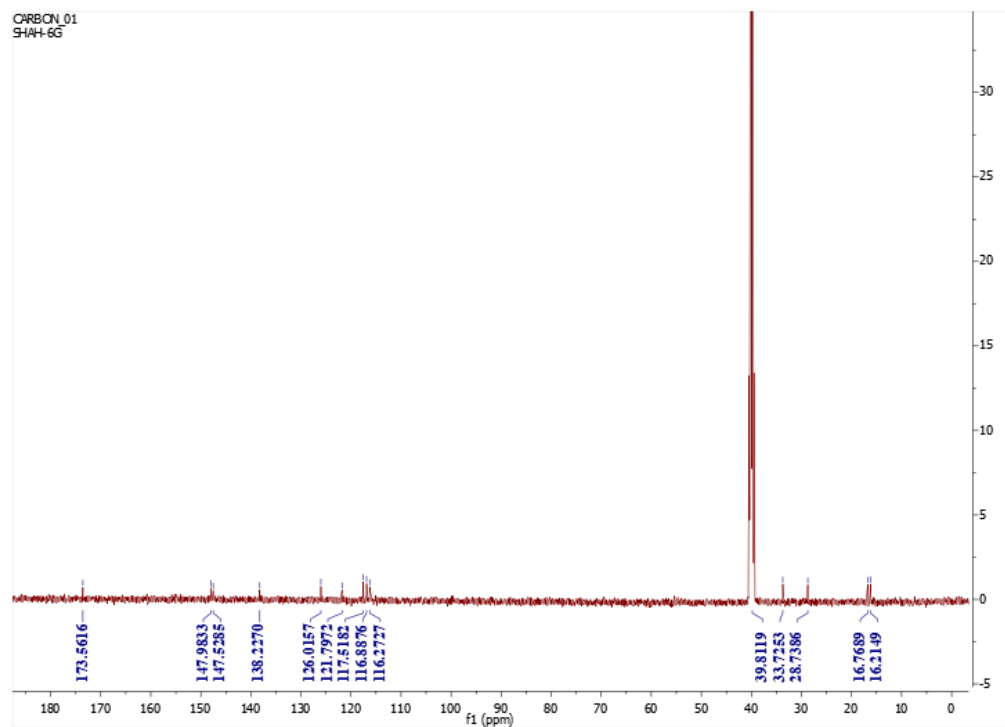


Figure S5. DEPT (125 MHz, DMSO-*d*₆) spectrum of compound 1

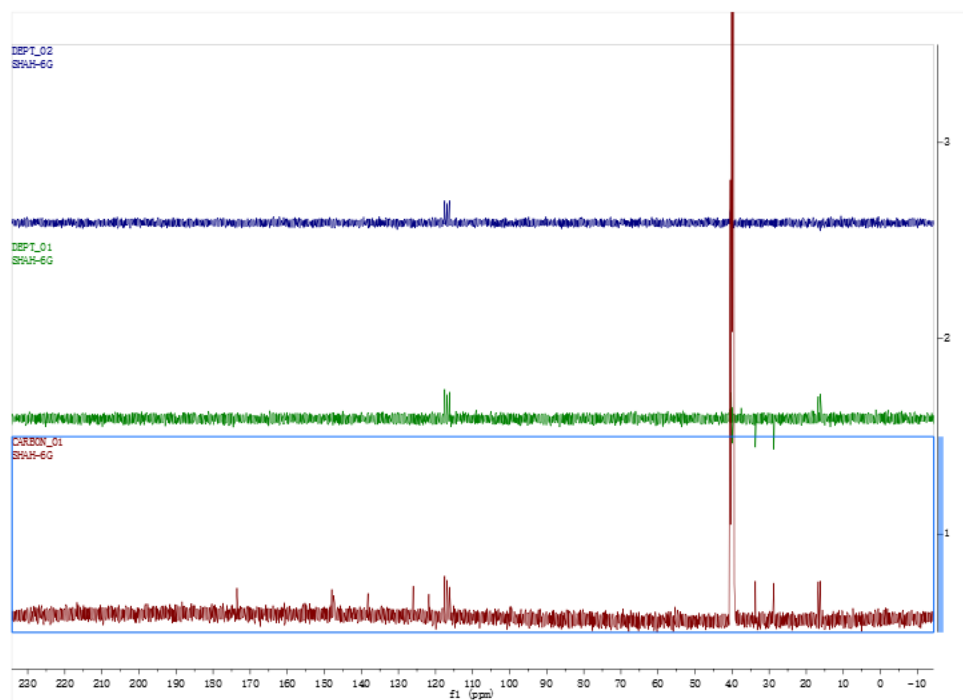


Figure S6. ¹H-¹H COSY spectrum of compound 1 in DMSO-*d*₆.

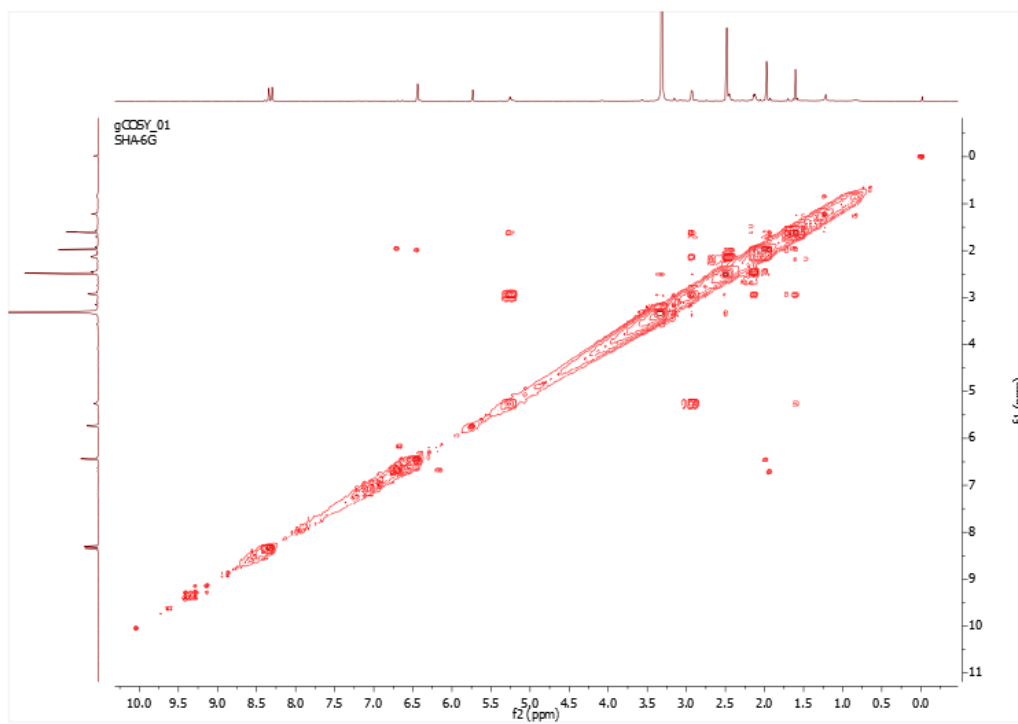


Figure S7. HSQC spectrum of compound **1** in DMSO-*d*₆.

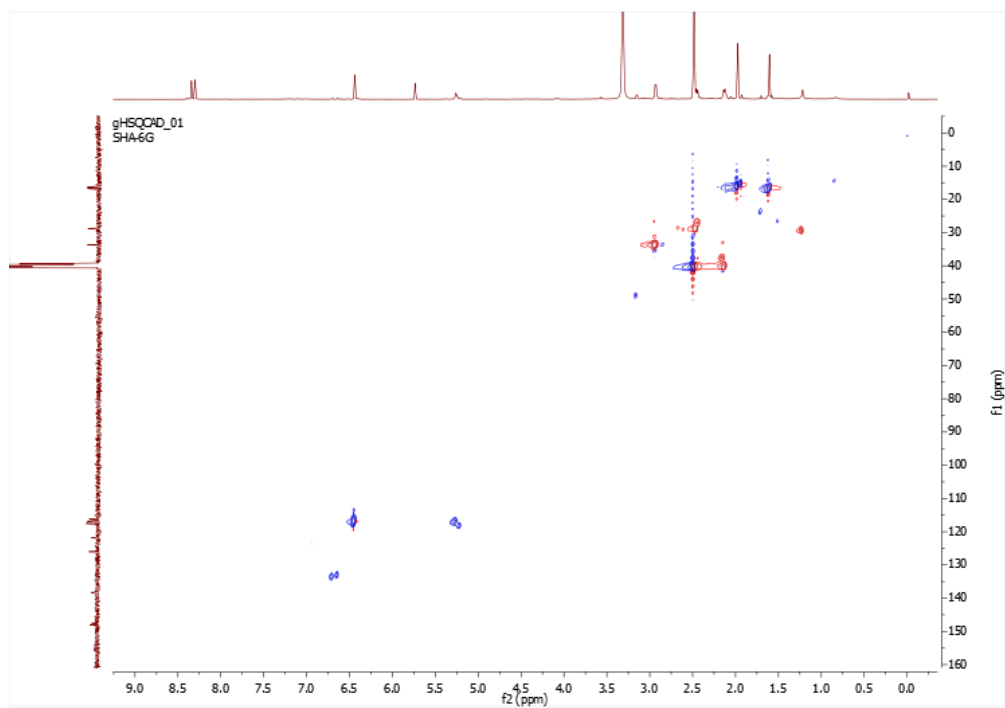


Figure S8. ¹H-¹³C HMBC spectrum of compound **1** in DMSO-*d*₆

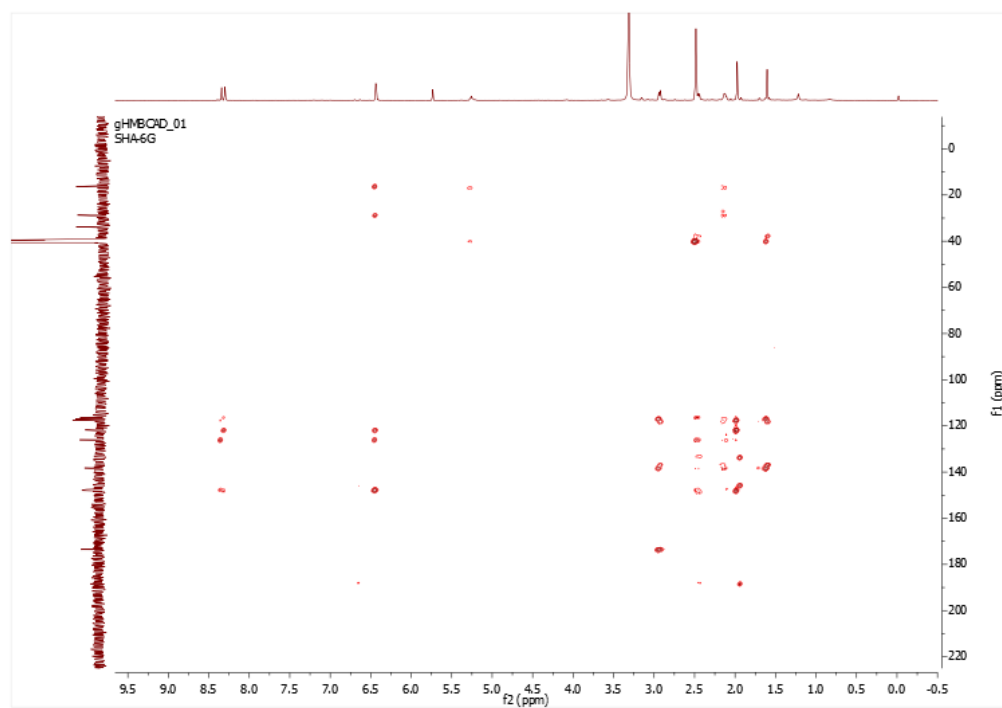


Figure S9. NOESY spectrum of compound **1** in DMSO- d_6

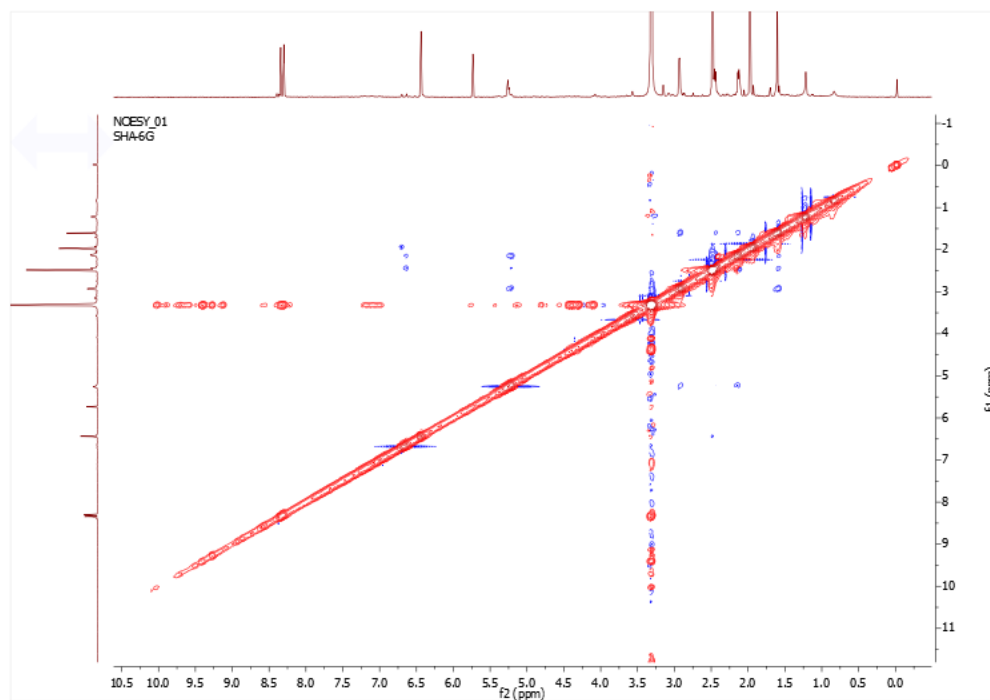


Figure S10. HRESIMS spectrum of compound **1**.

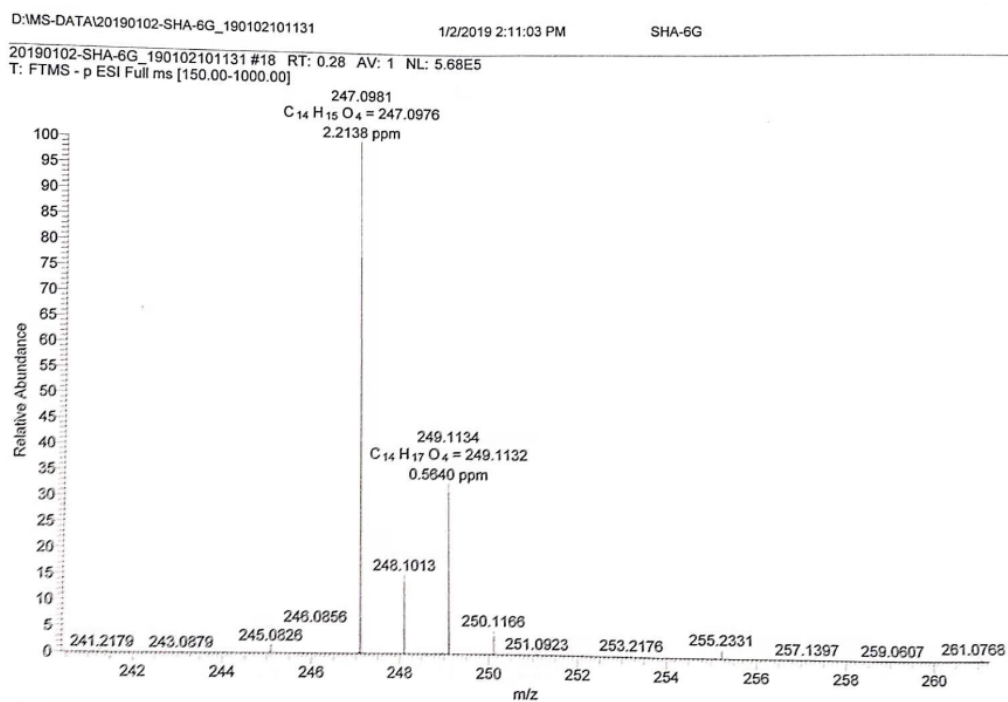


Figure S11. IR spectrum of compound **1**.

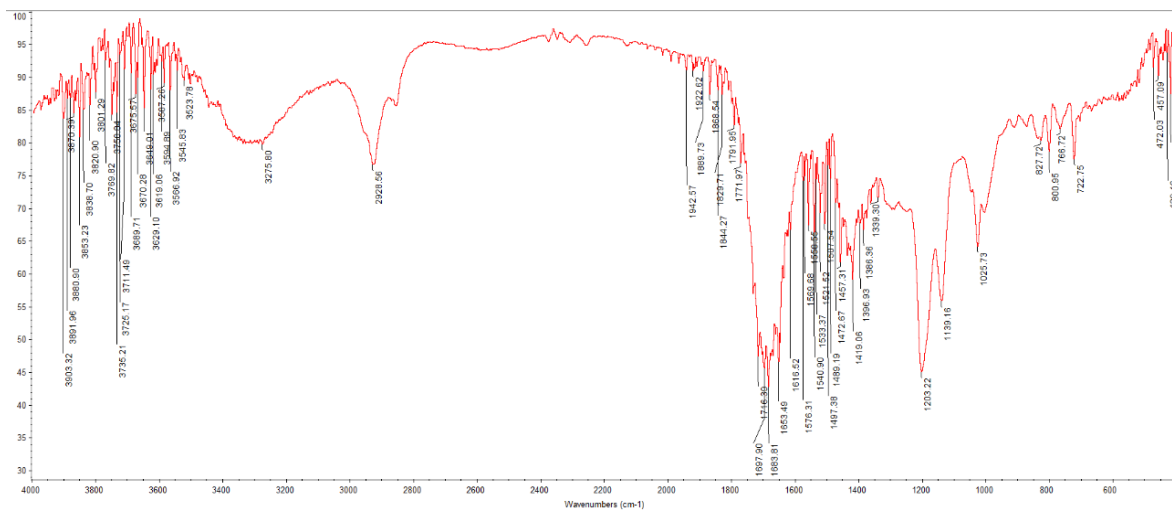


Figure S12. UV spectrum of compound **1**.

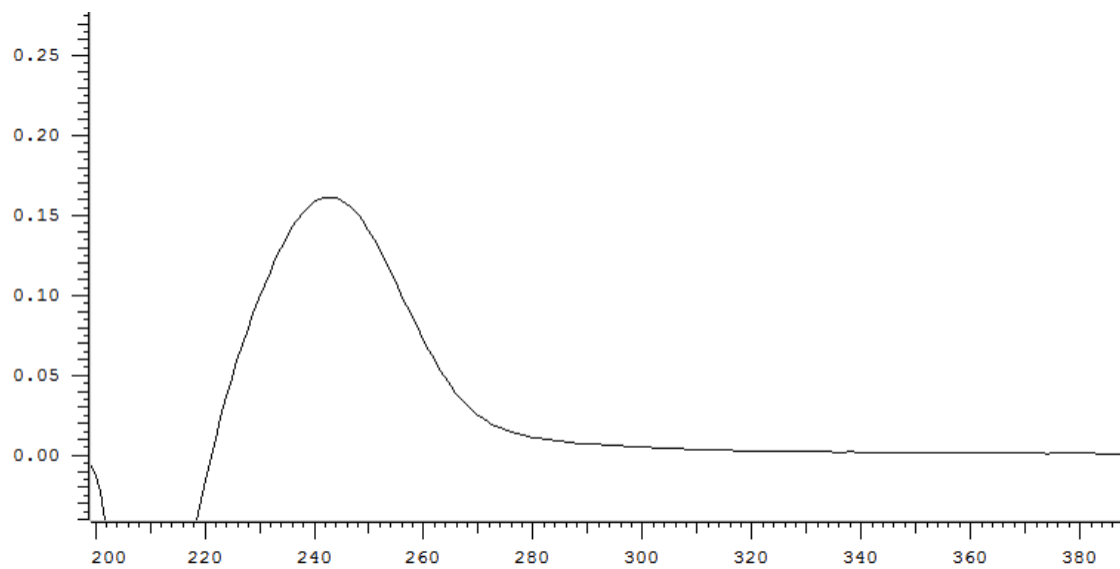


Figure S13. ^1H NMR (500 MHz, $\text{DMSO-}d_6$) spectrum of compound **2**.

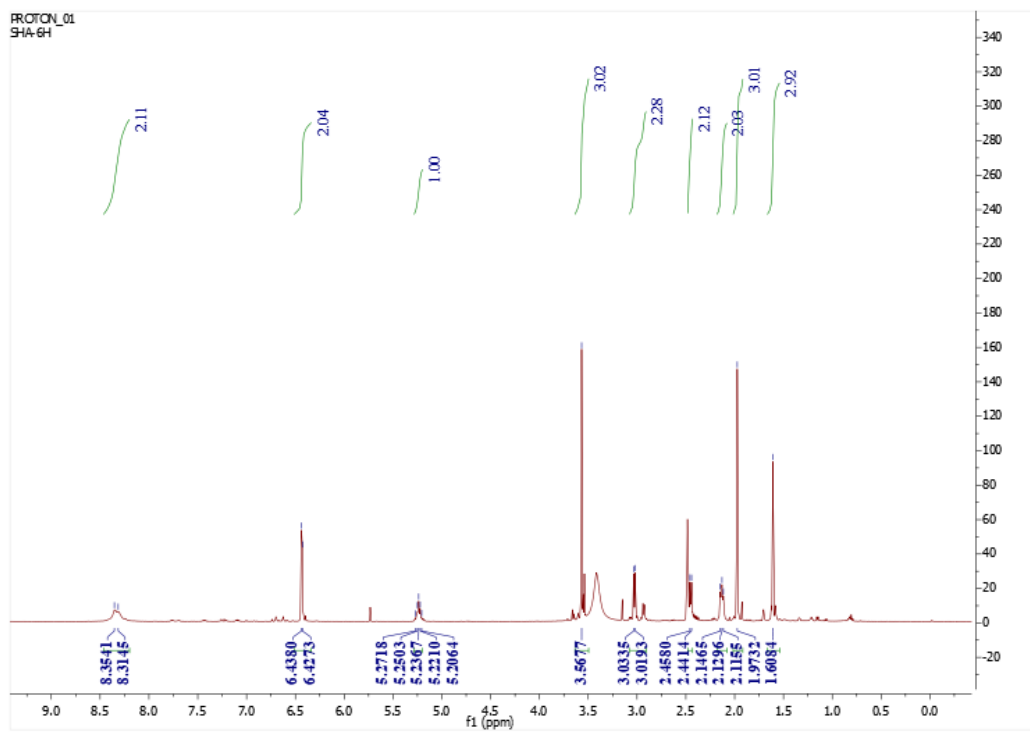


Figure S14. ^{13}C NMR (125 MHz, $\text{DMSO-}d_6$) spectrum of compound **2**.

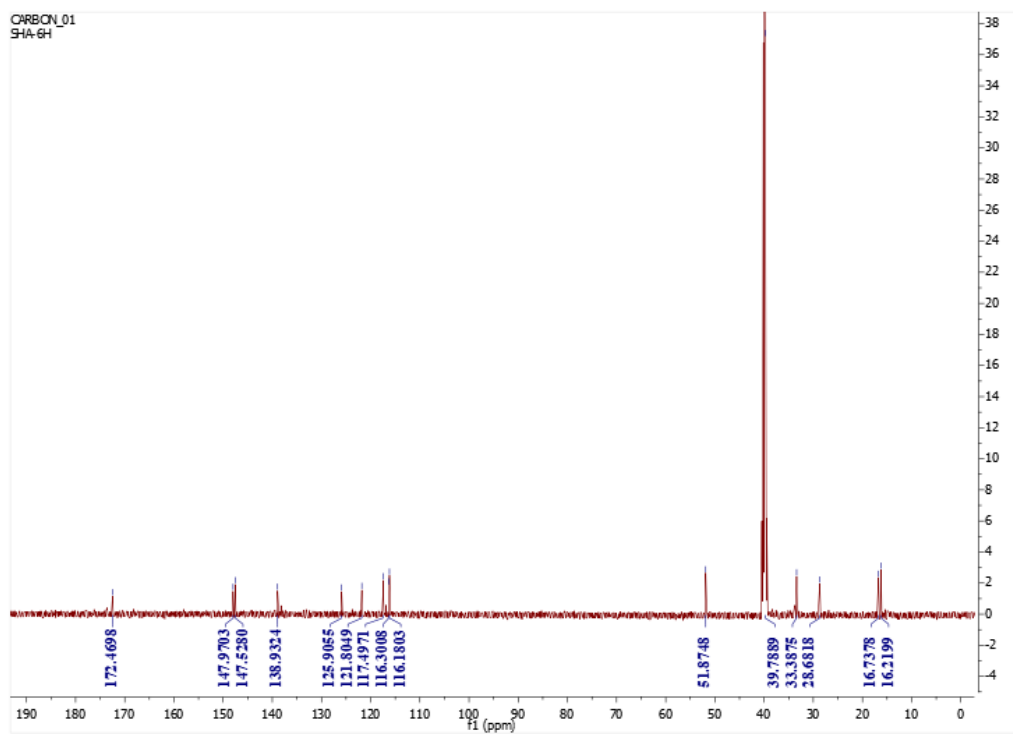


Figure S15. DEPT (125 MHz, DMSO-*d*₆) spectrum of compound **2**.

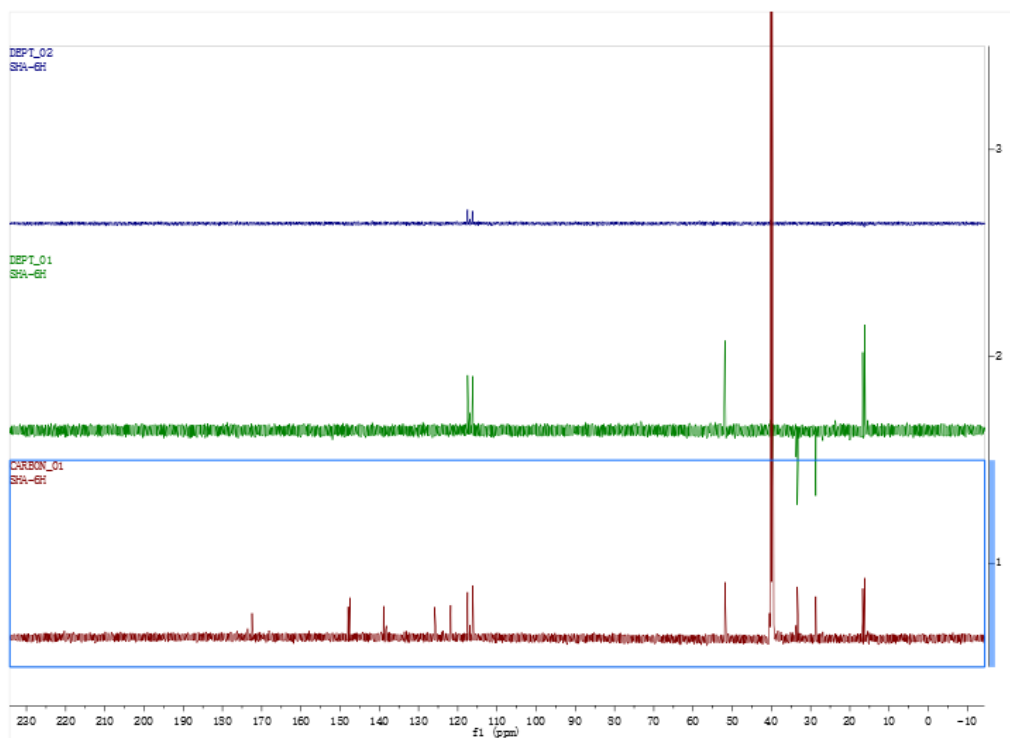


Figure S16. ¹H-¹H COSY spectrum of compound **2** in DMSO-*d*₆.

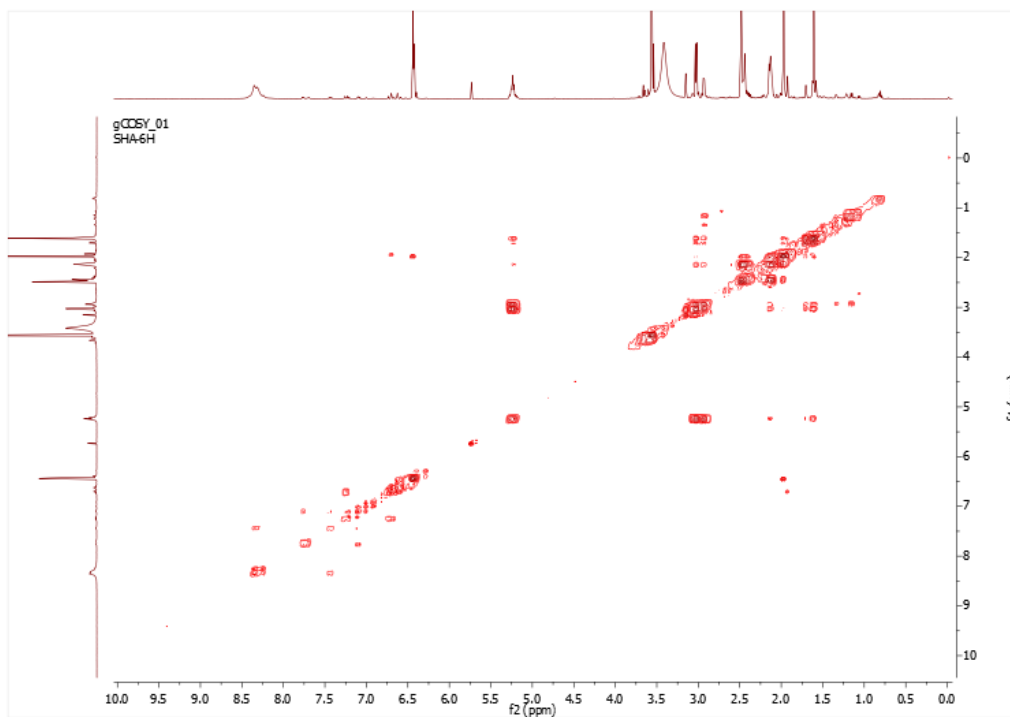


Figure S17. HSQC spectrum of compound **2** in DMSO-*d*₆.

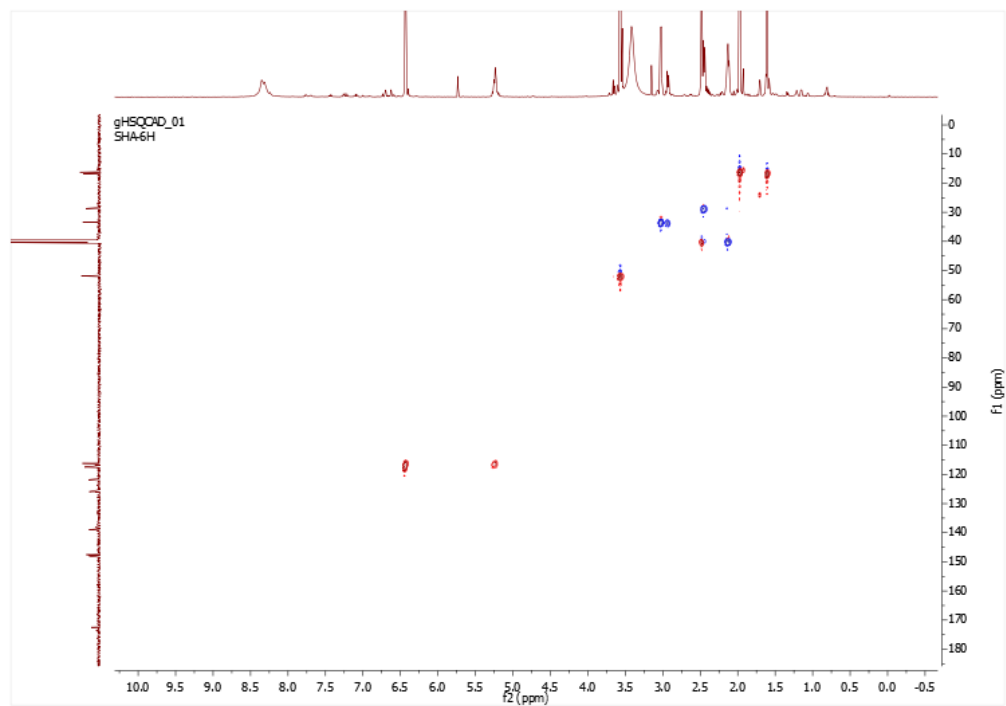


Figure S18. ¹H-¹³C HMBC spectrum of compound **2** in DMSO-*d*₆.

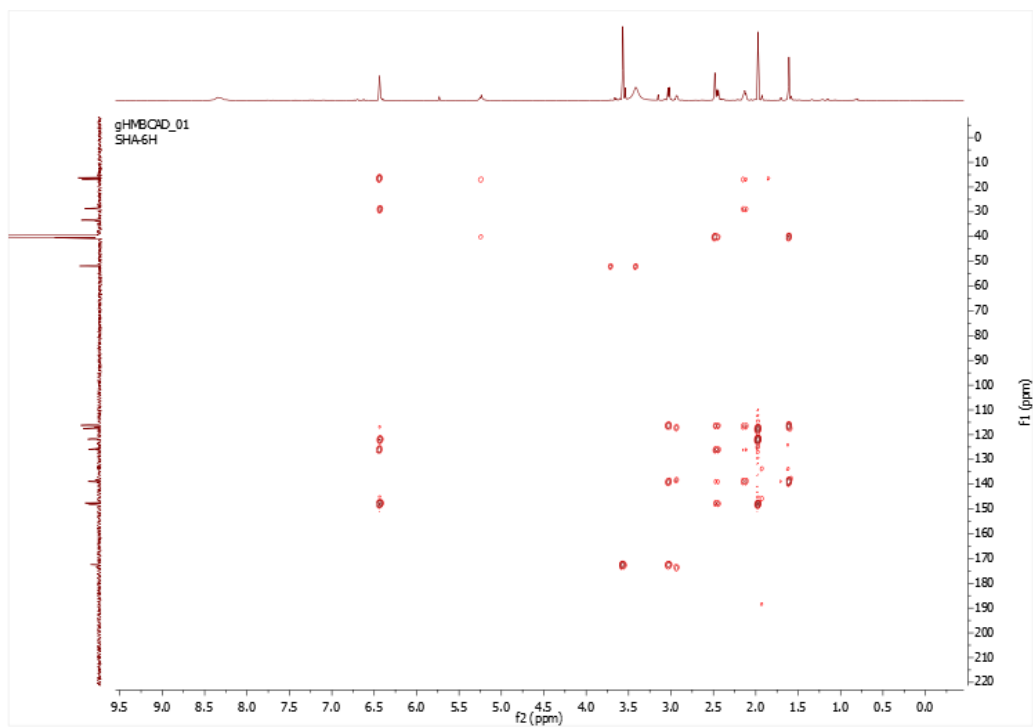


Figure S19. HRESIMS spectrum of compound 2.

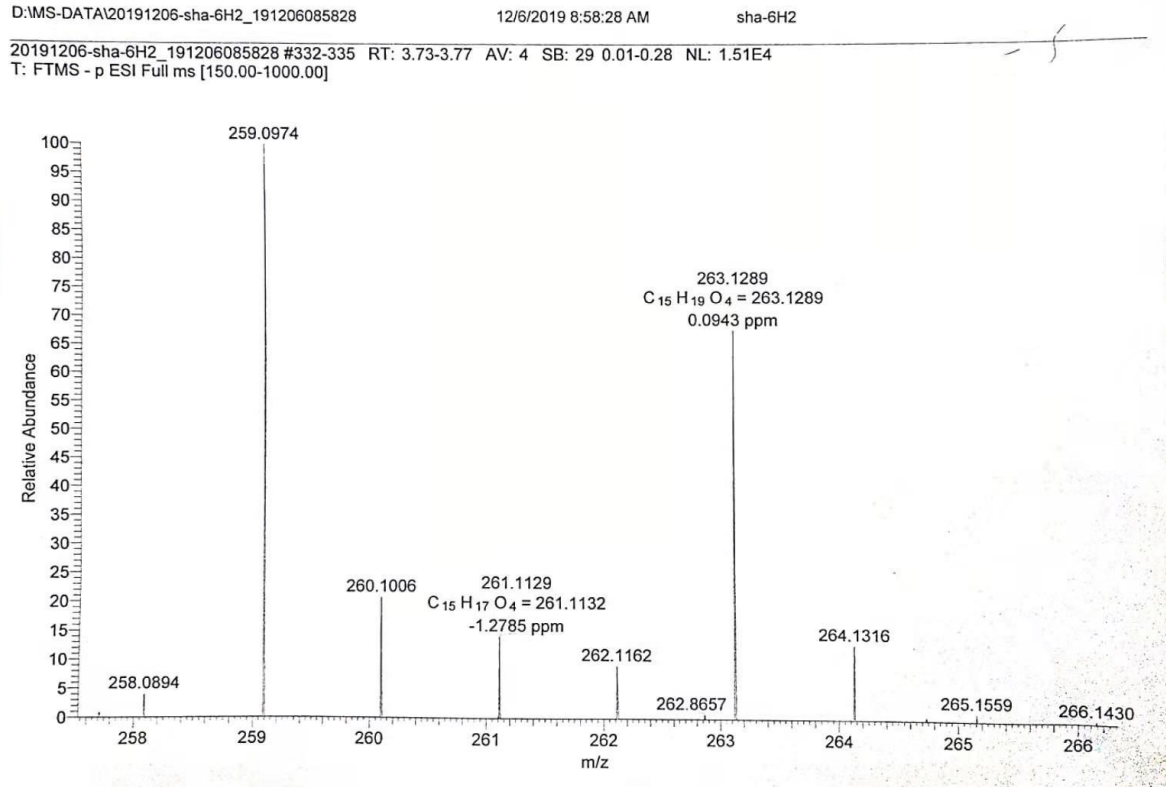


Figure S20. IR spectrum of compound 2.

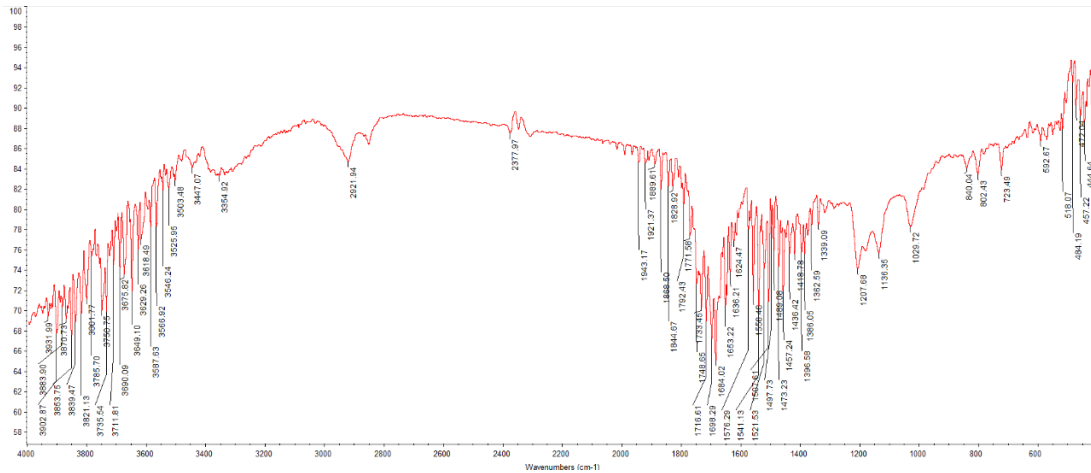


Figure S21. UV spectrum of compound **2**.

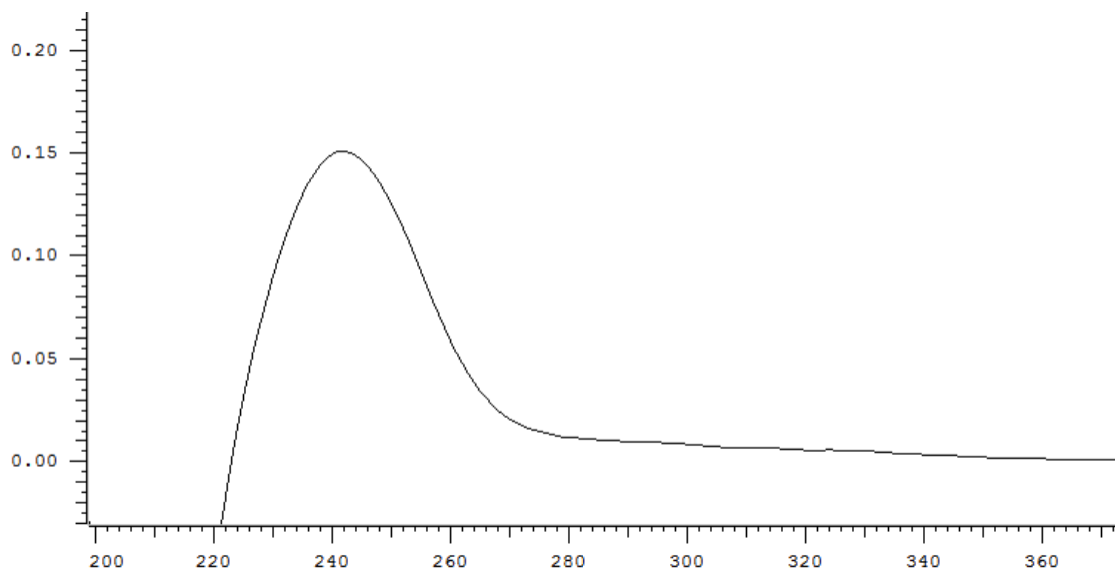


Figure S22. ^1H NMR (500 MHz, $\text{DMSO-}d_6$) spectrum of compound **3**.

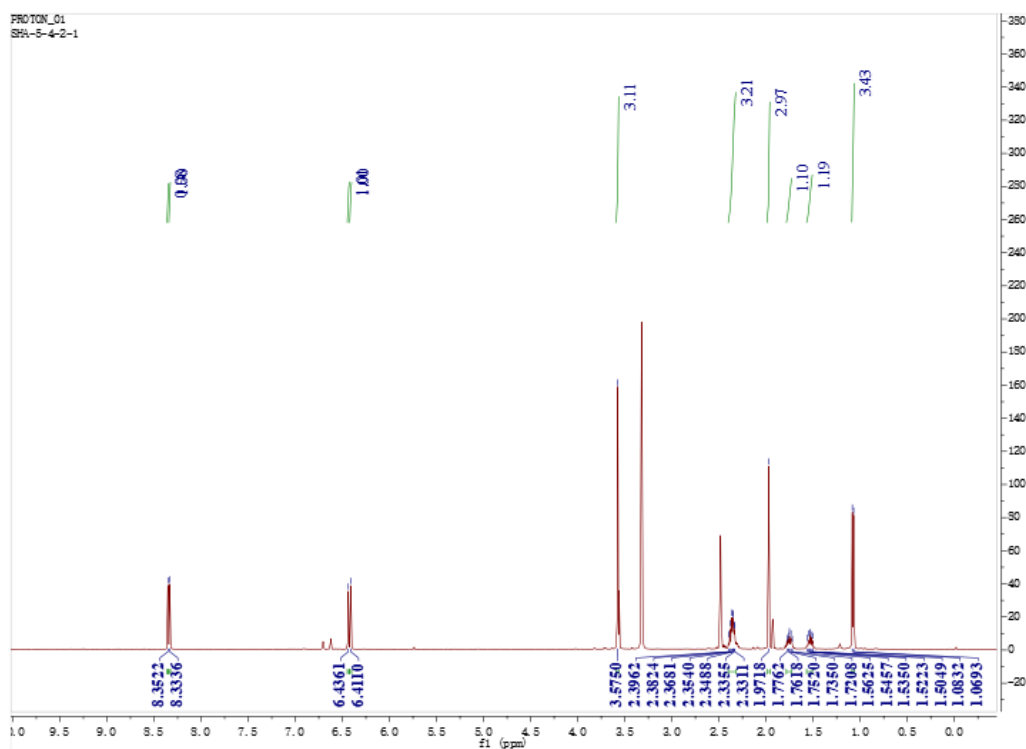


Figure S23. ^{13}C NMR (125 MHz, $\text{DMSO-}d_6$) spectrum of compound **3**.

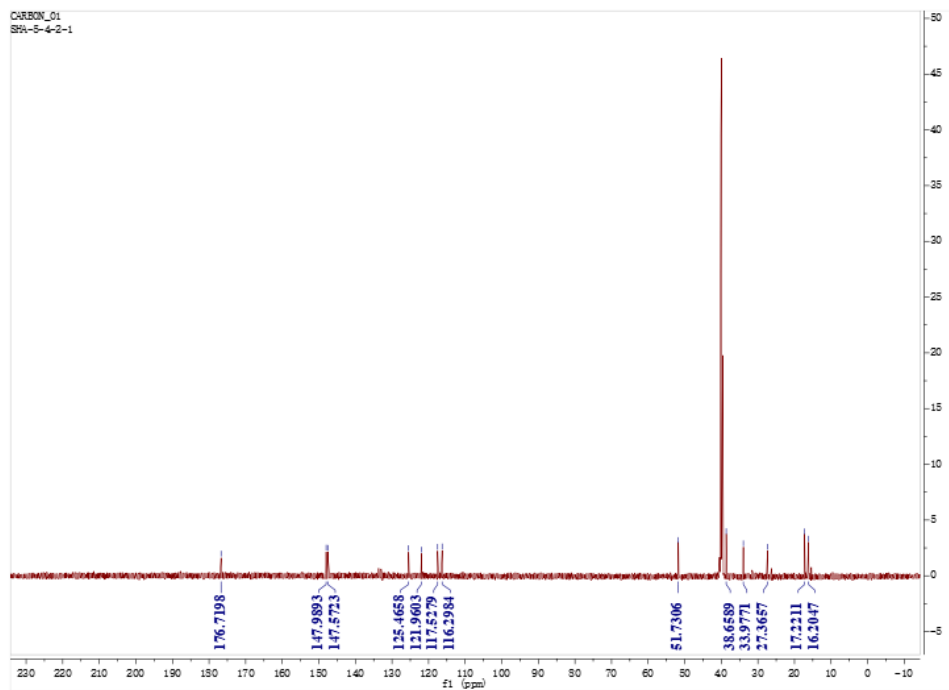


Figure S24. DEPT (125 MHz, $\text{DMSO-}d_6$) spectrum of compound **3**.

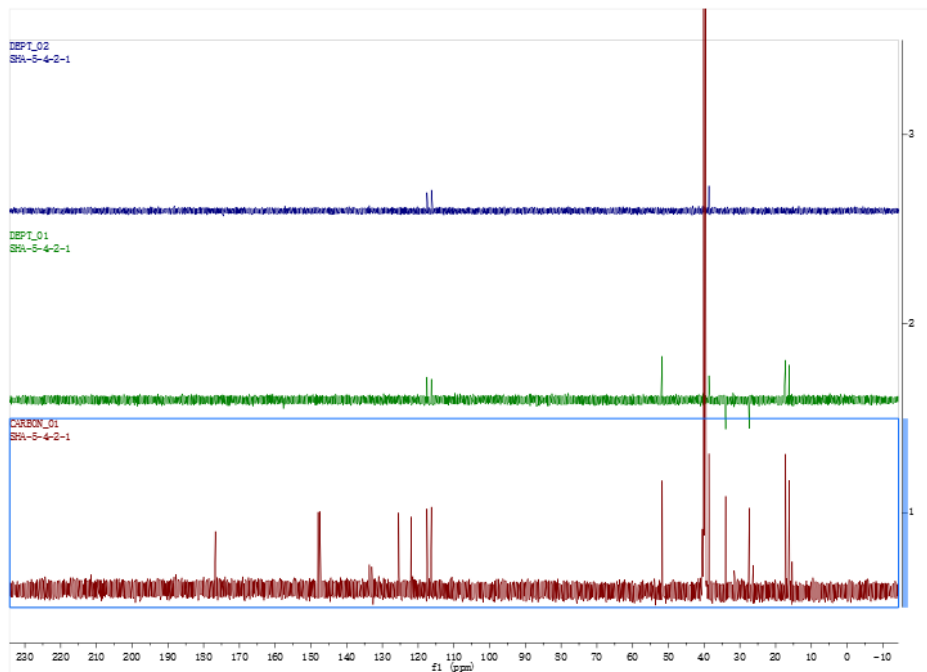


Figure S25. ^1H - ^1H COSY spectrum of compound **3** in $\text{DMSO-}d_6$.

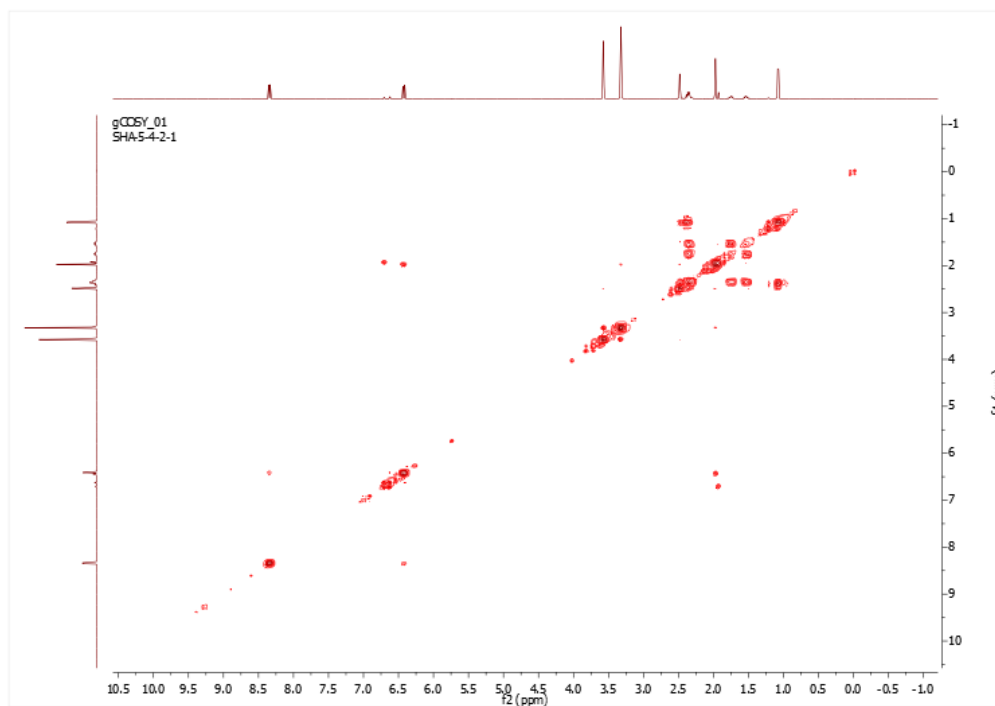


Figure S26. HSQC spectrum of compound **3** in $\text{DMSO-}d_6$.

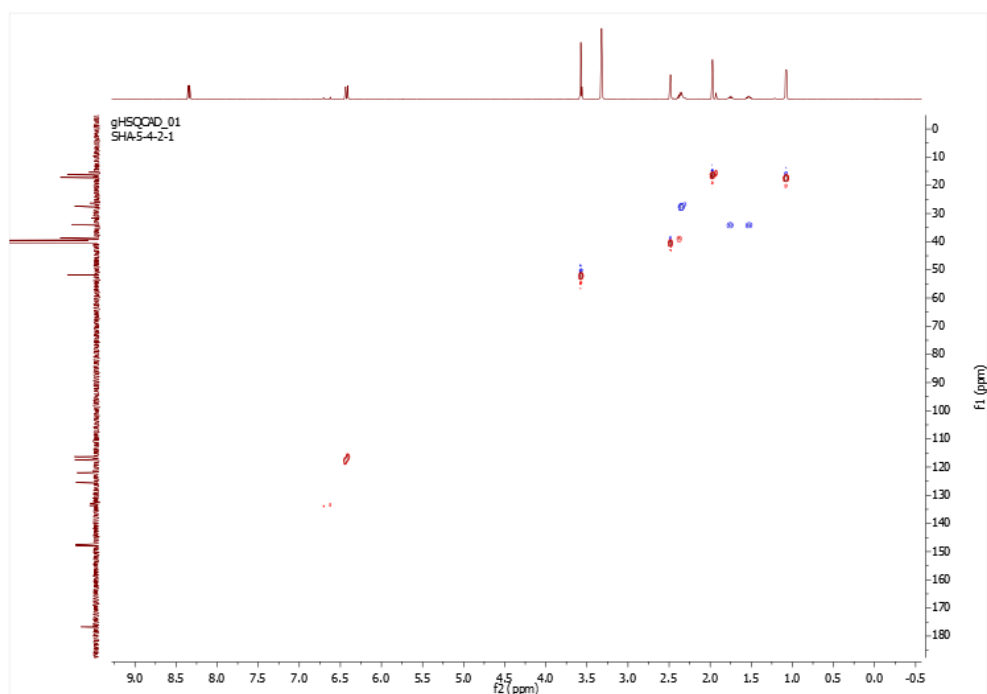


Figure S27. ^1H - ^{13}C HMBC spectrum of compound **3** in $\text{DMSO-}d_6$.

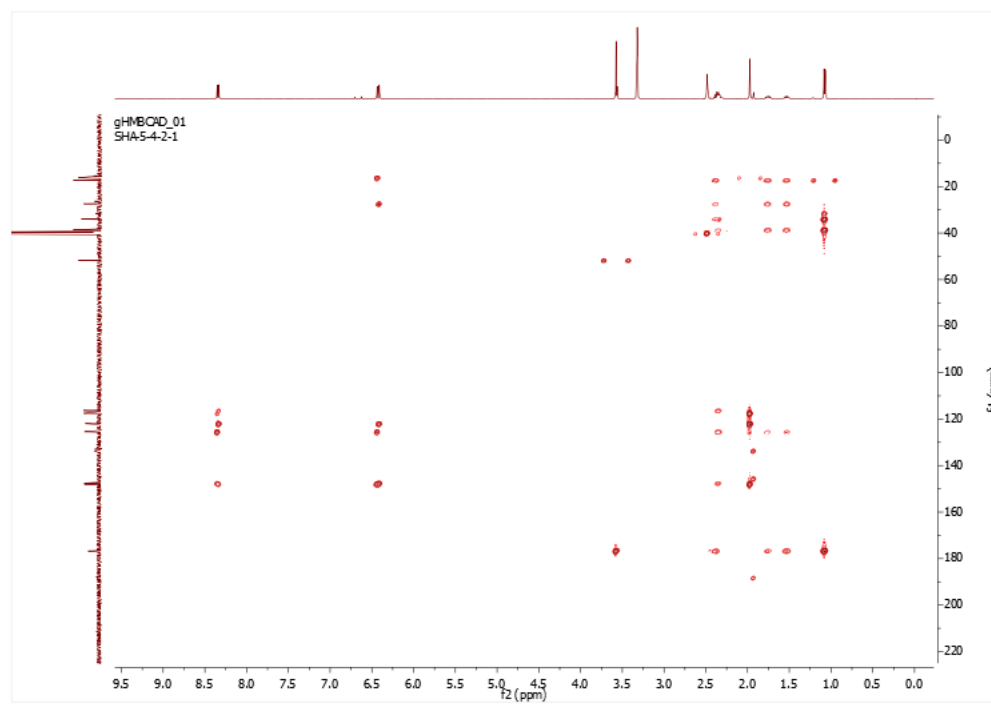


Figure S28. NOESY spectrum of compound **3** in $\text{DMSO-}d_6$.

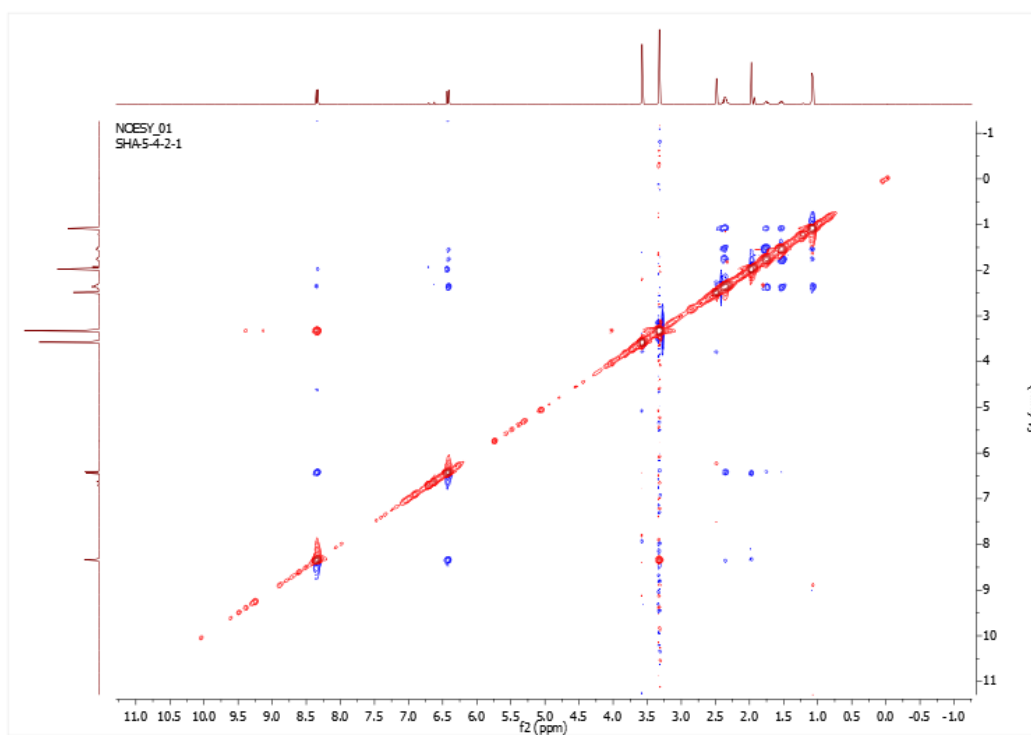


Figure S29. HRESIMS spectrum of compound 3.

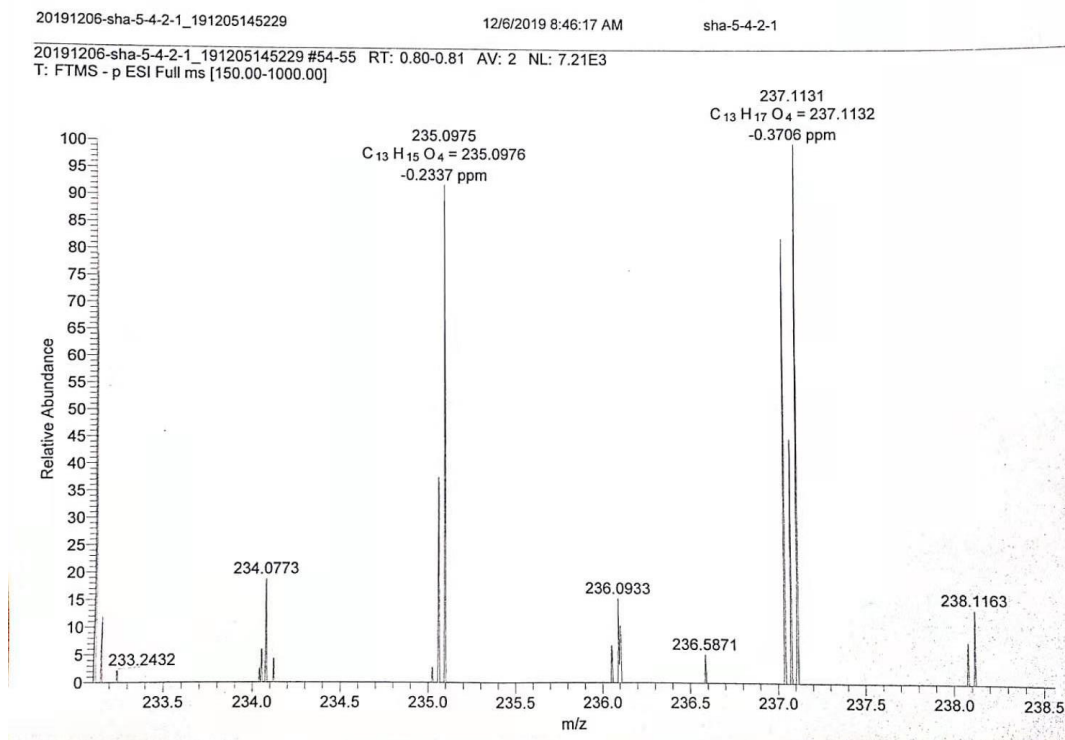


Figure S30. IR spectrum of compound 3.



Figure S31. UV spectrum of compound **3**.

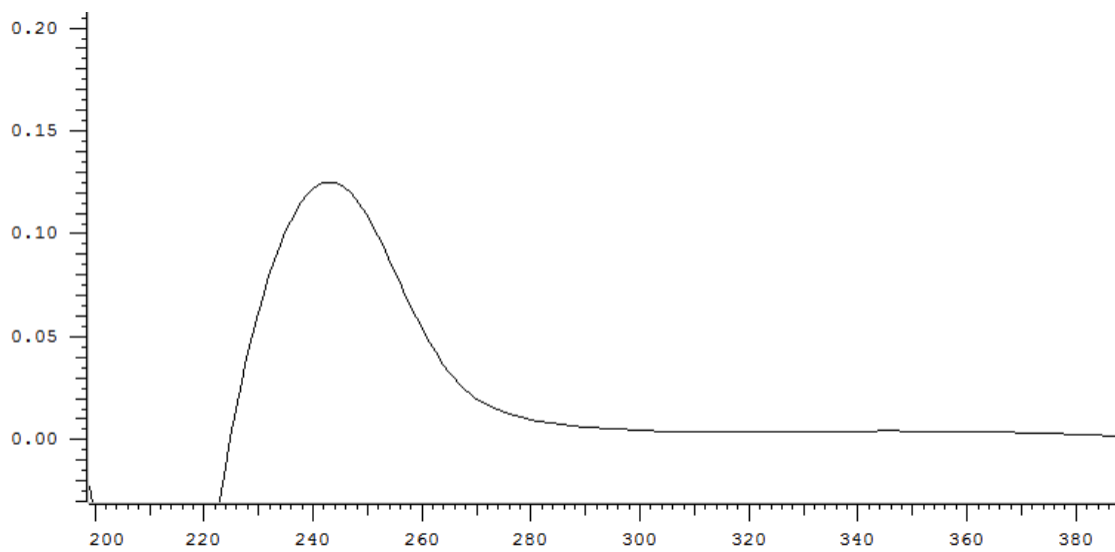


Figure S32. ^1H NMR (500 MHz, CDCl_3) spectrum of compound **1**.

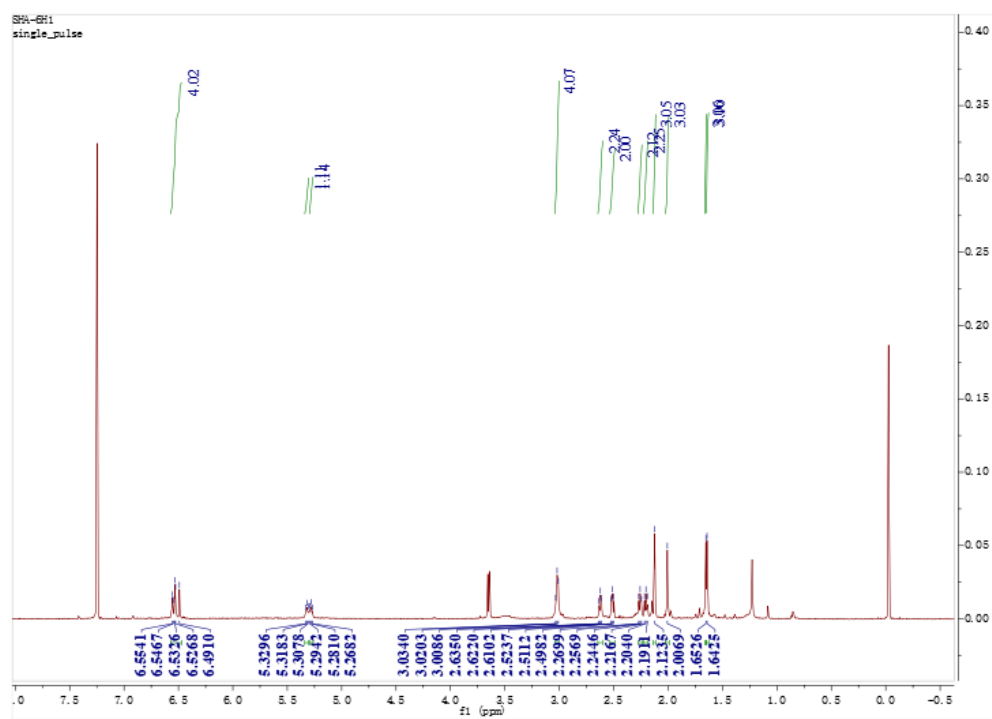


Figure S33. ^{13}C NMR (125 MHz, CDCl_3) spectrum of compound **1**.

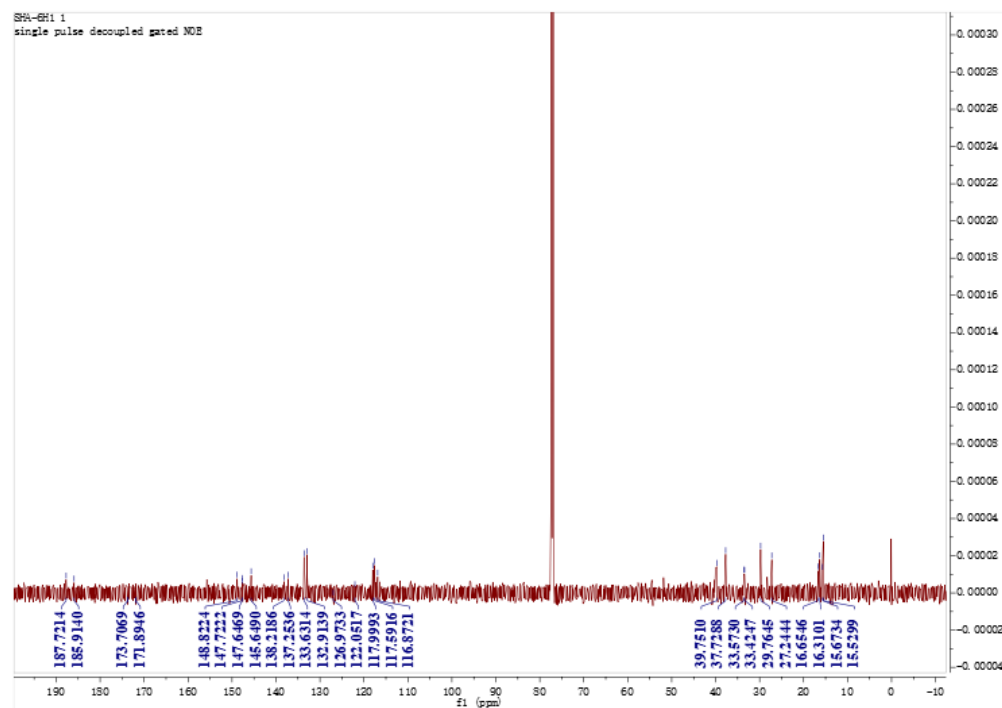


Figure S34. DEPT (125 MHz, CDCl_3) spectrum of compound **1**.

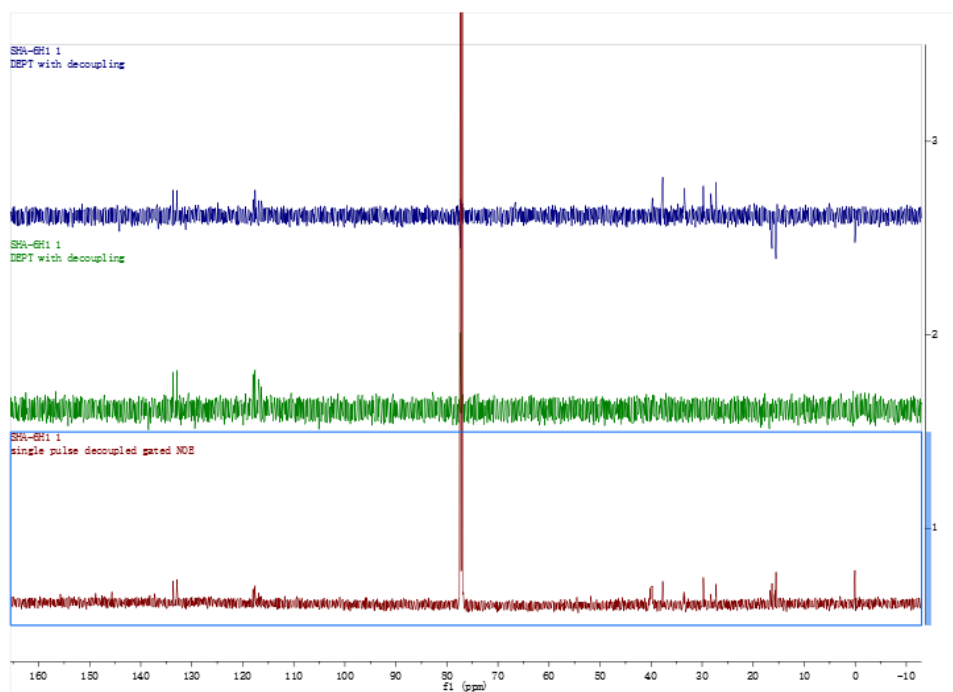


Figure S35. ^1H - ^1H COSY spectrum of compound **1** in CDCl_3 .

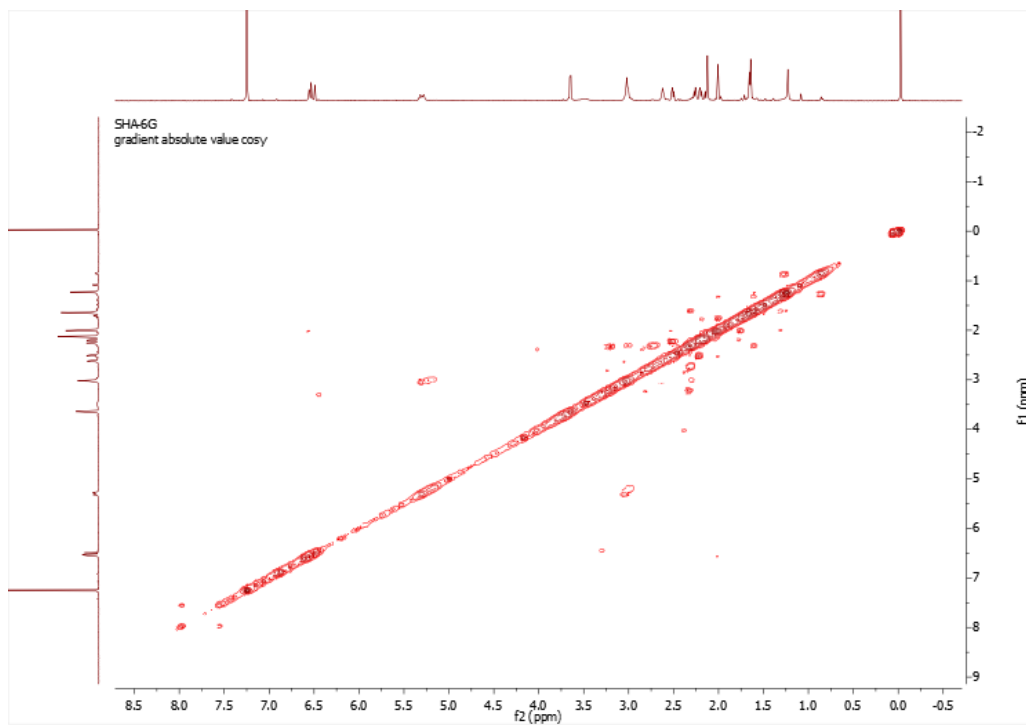


Figure S36. ^1H - ^{13}C HSQC spectrum of compound **1** in CDCl_3 .

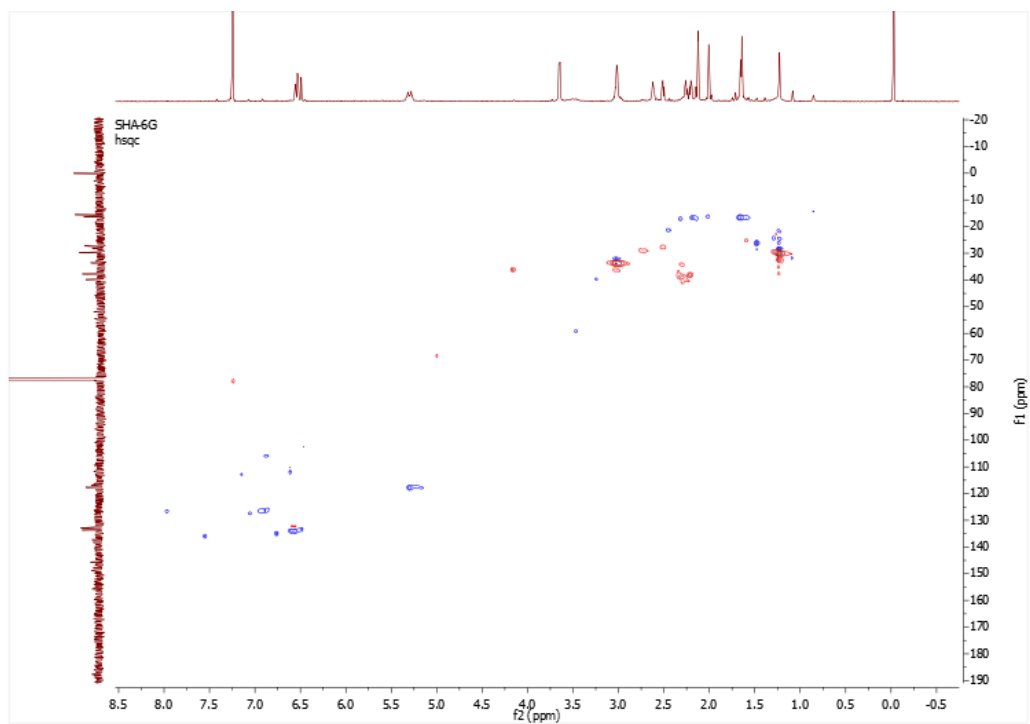


Figure S37. ^1H - ^{13}C HMBC spectrum of compound **1** in CDCl_3 .

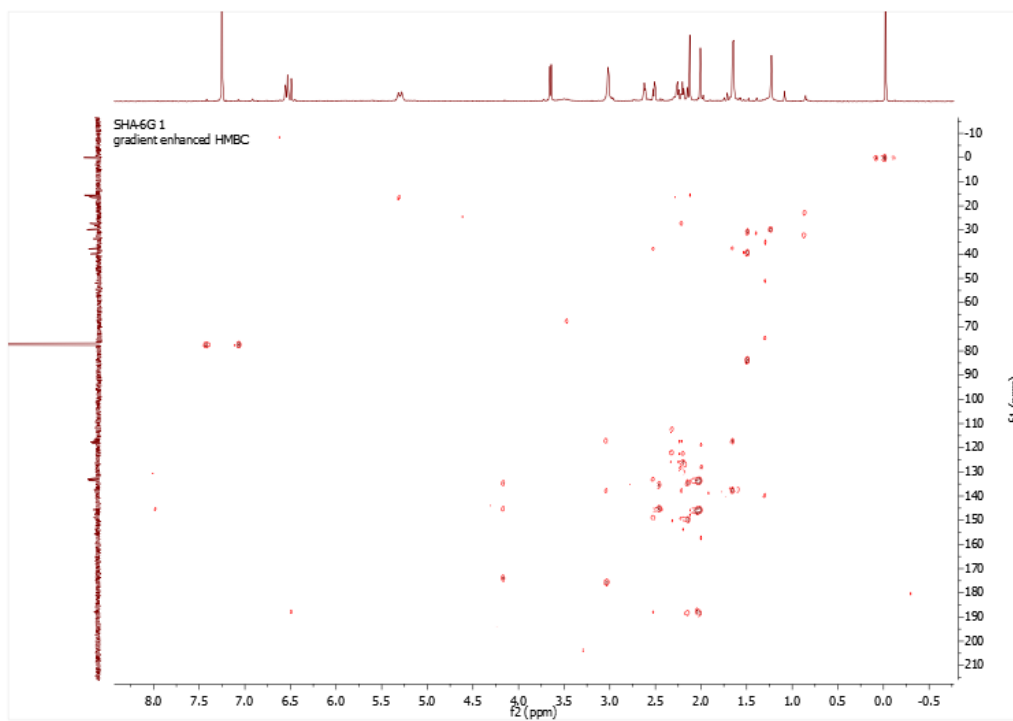


Figure S38. NOESY spectrum of compound **1** in CDCl_3 .

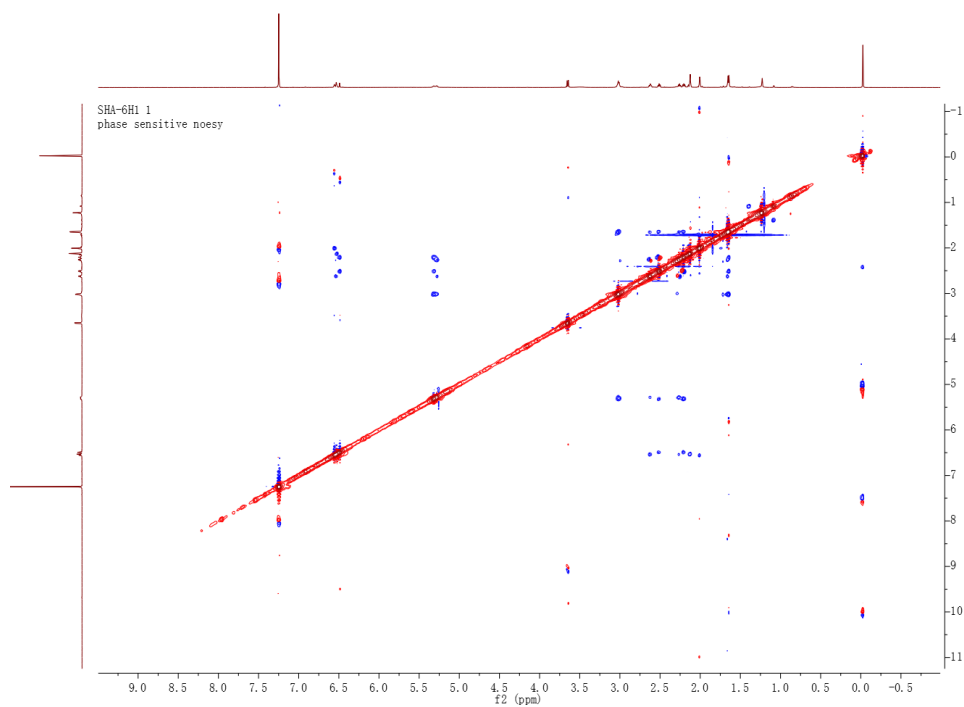


Figure S39. ^1H NMR (500 MHz, CDCl_3) spectrum of compound 2.

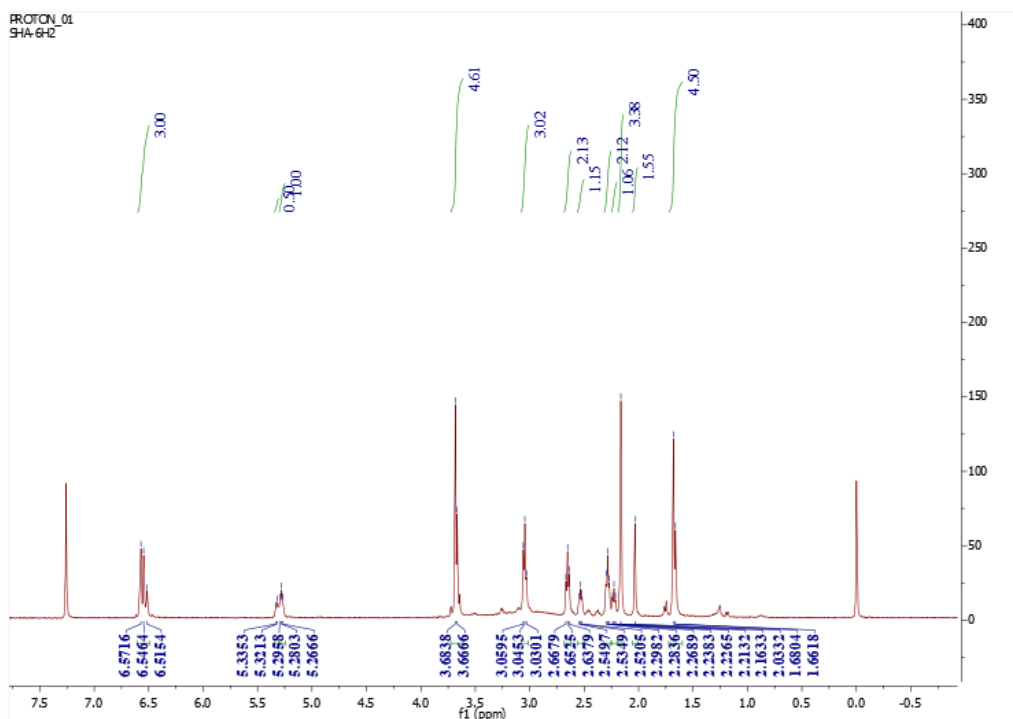


Figure S40. ^{13}C NMR (125 MHz, CDCl_3) spectrum of compound 2.

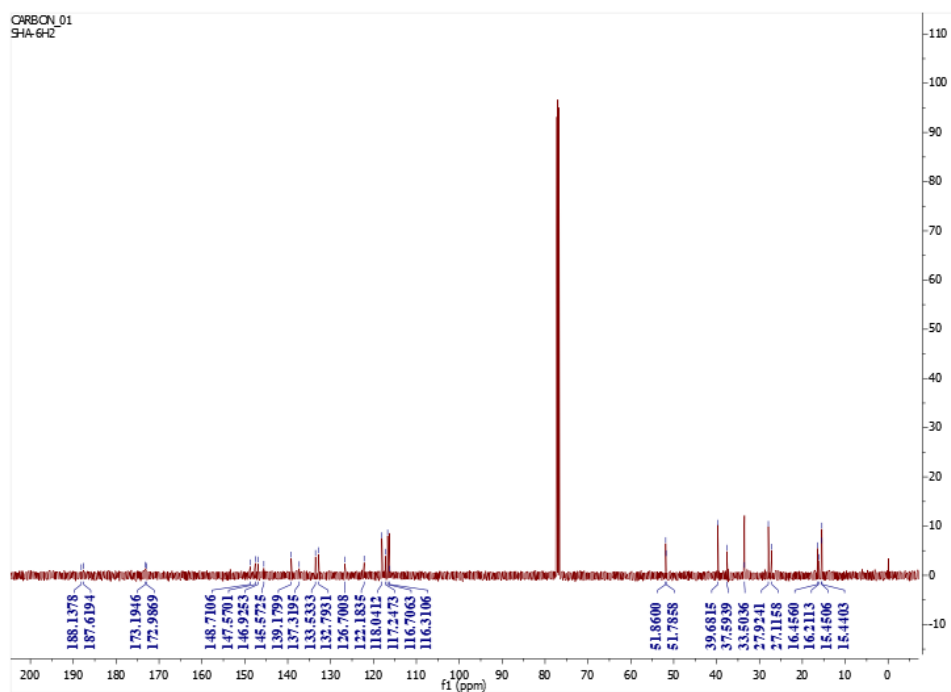


Figure S41. DEPT (125 MHz, CDCl₃) spectrum of compound **2**.

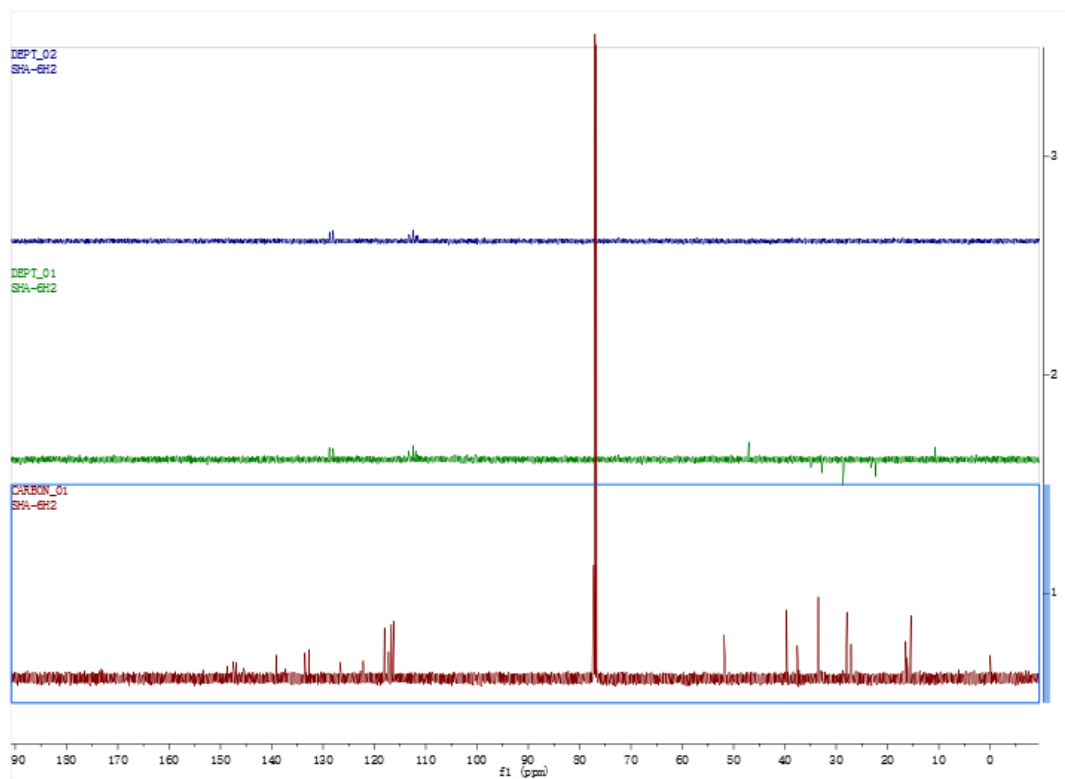


Figure S42. ¹H-¹H COSY spectrum of compound **2** in CDCl₃.

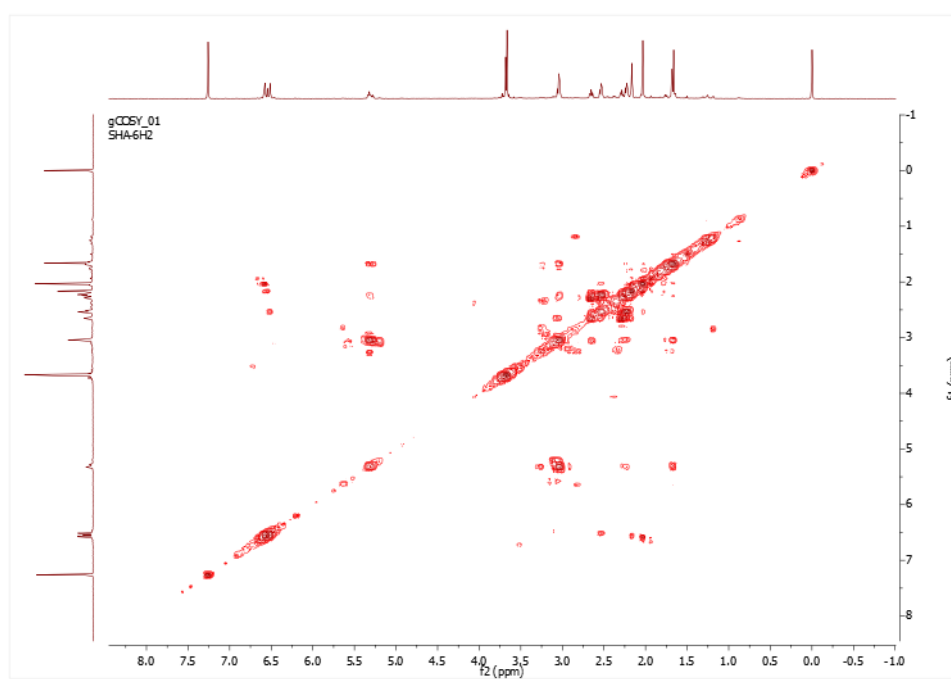


Figure S43. HSQC spectrum of compound **2** in CDCl₃.

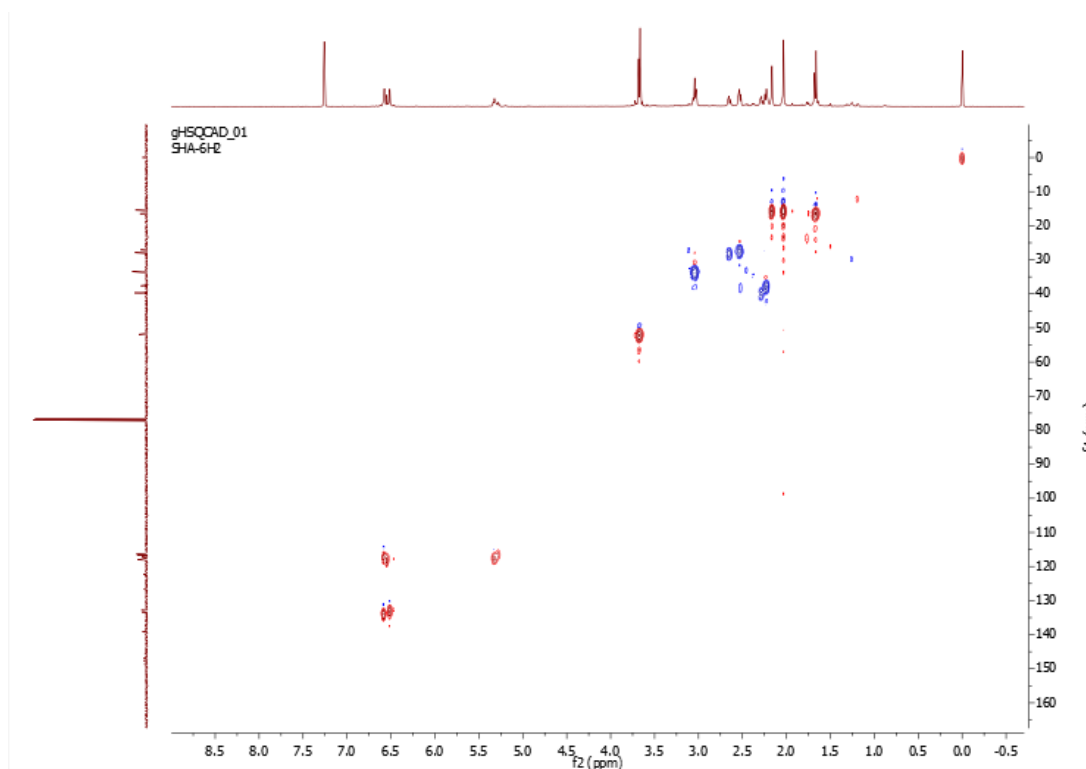


Figure S44. ¹H-¹³C HMBC spectrum of compound **2** in CDCl₃.

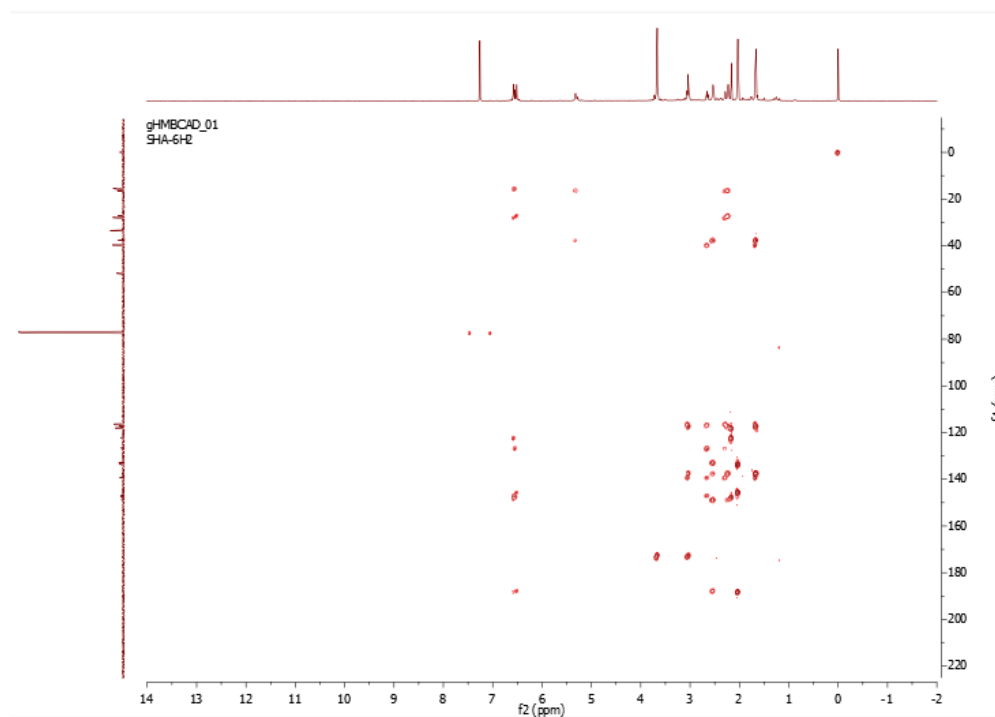


Figure S45. NOESY spectrum of compound **2** in CDCl₃.

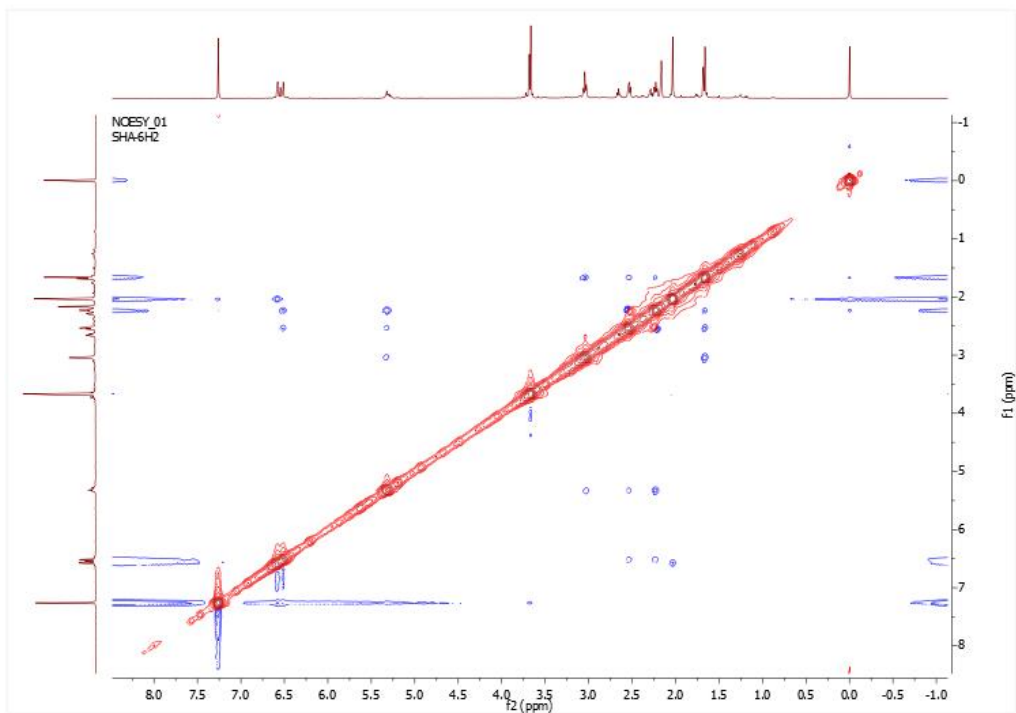


Figure S46. ¹H NMR (500 MHz, CDCl₃) spectrum of compound **3**.

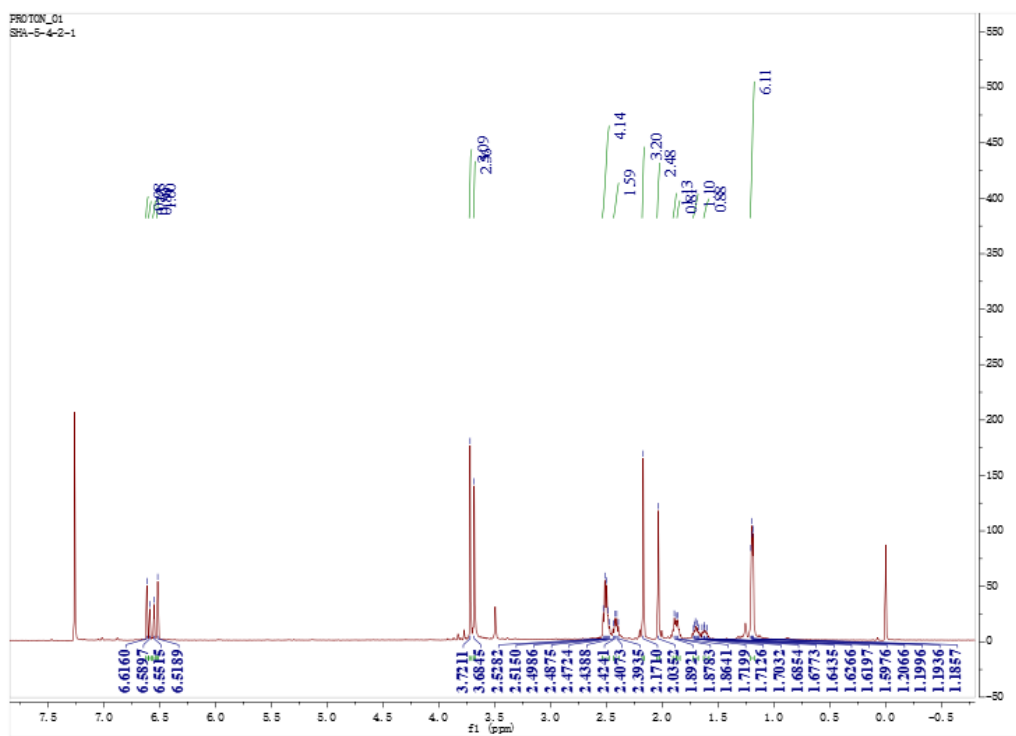


Figure S47. ^{13}C NMR (125 MHz, CDCl_3) spectrum of compound **3**.

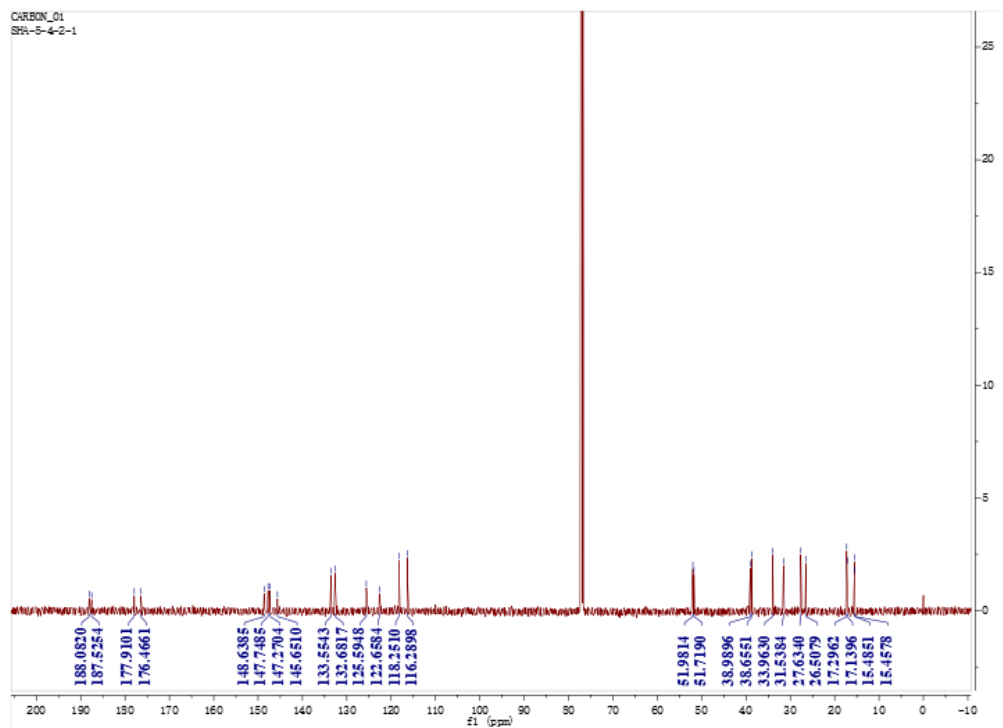


Figure S48. DEPT (125 MHz, CDCl_3) spectrum of compound **3**.

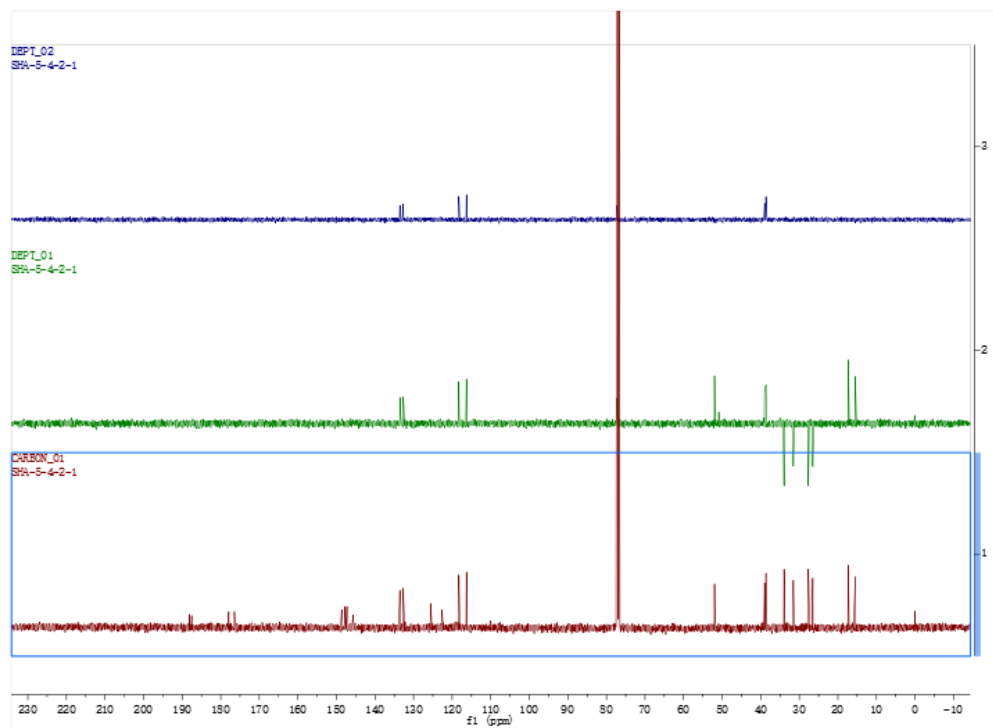


Figure S49. ^1H - ^1H COSY spectrum of compound **3** in CDCl_3 .

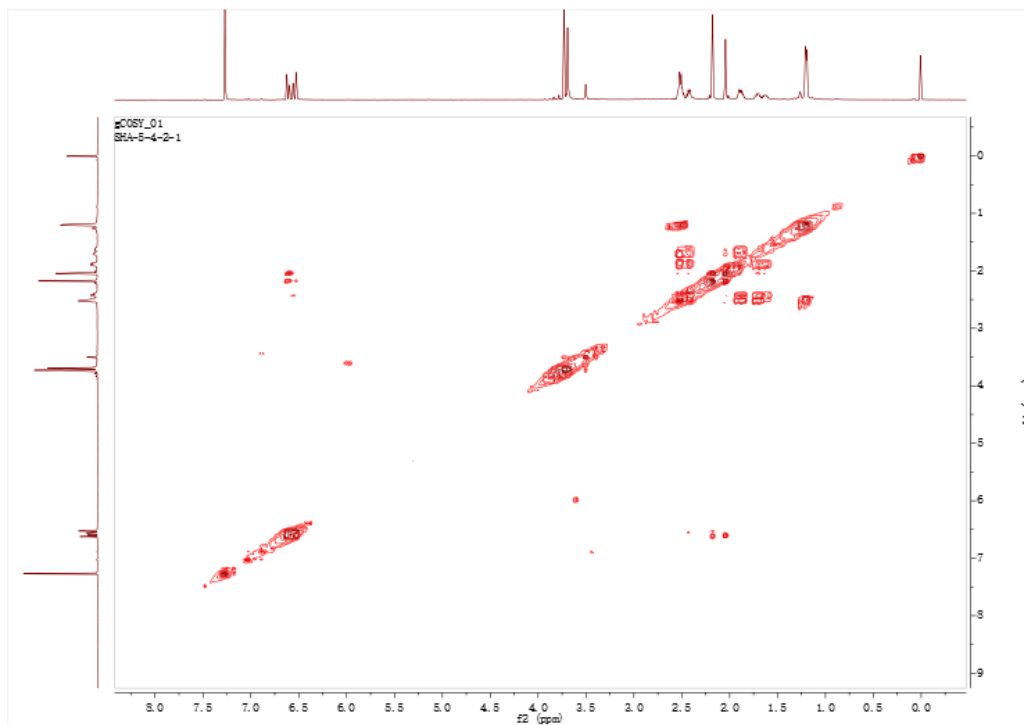


Figure S50. HSQC spectrum of compound **3** in CDCl_3 .

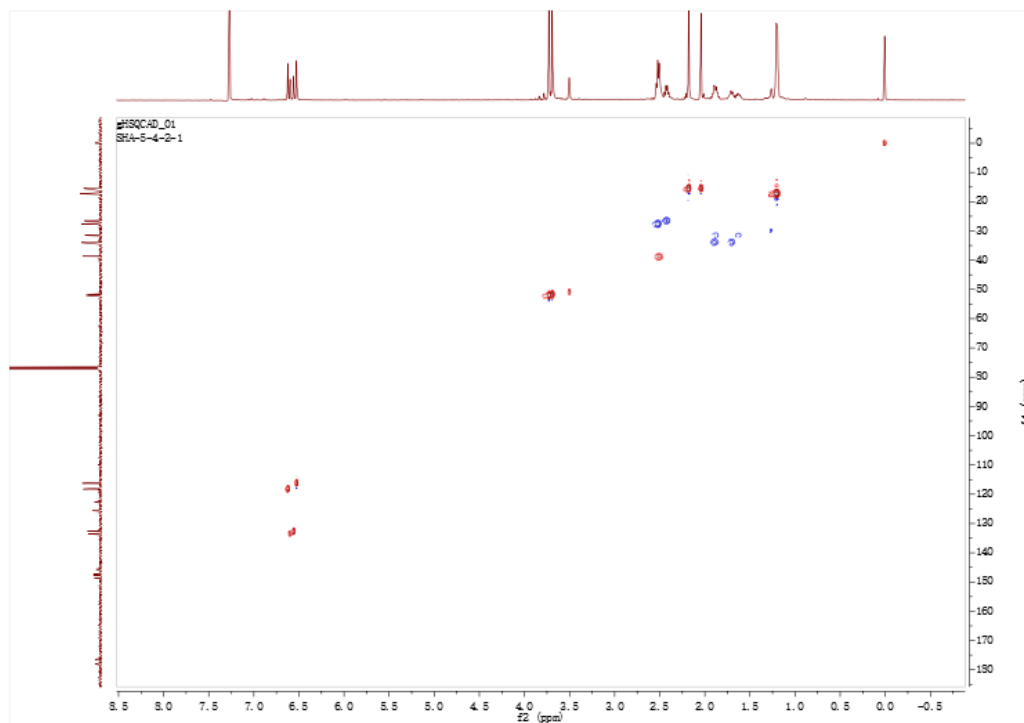


Figure S51. ^1H - ^{13}C HMBC spectrum of compound **3** in CDCl_3 .

