Supporting Information for

New Glutamine-Containing Azaphilone Alkaloids from Deep-sea-Derived Fungus *Chaetomium globosum* HDN151398

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Figure S1. HPLC analysis of the crude of HDN151398.

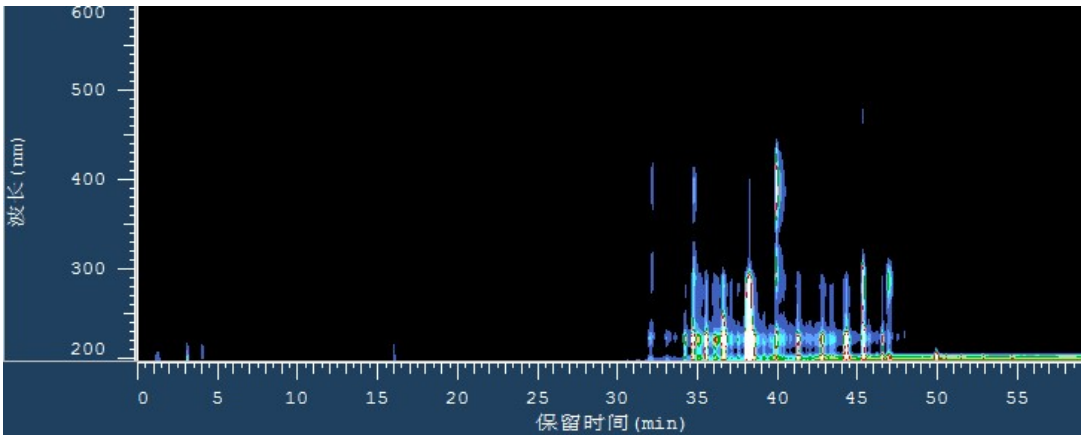


Figure S2. The 18S rRNA sequences data of *Chaetomium globosum* HDN151398.

AAGGAGCTGCAACTCCCTAACCATTGTGAACGTTACCTATACCGTTGCTTC
GGCGGGCGGCCCCGGGGTTTACCCCCCGGGCGCCCCTGGGCCCCACCGCG
GGCGCCCGCCGGAGGTCACCAAACTCTTGATAATTTATGGCCTCTCTGAGT
CTTCTGTACTGAATAAGTCAAAACTTTCAACAACGGATCTCTTGGTTCTGG
CATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATT
CAGTGAATCATCGAATCTTTGAACGCACATTGCGCCCGCCAGCATTCTGGC
GGGCATGCCTGTTCGAGCGTCATTTCAACCATCAAGCCCCCGGGCTTGTGT
TGGGGACCTGCGGCTGCCGCAGGCCCTGAAAAGCAGTGGCGGGCTCGCTG
TCGCACCGAGCGTAGTAGCATACATCTCGCTCTGGTCGCGCCGCGGGTTCC
GGCCGTTAAACCACCTTTTAACCCAAGGTTGACCTCGGATCAGGTAGGAAG
ACCCGCTGAACTTAAGCATATCAAAGCCGGGAAGA

Figure S3. ^{1}H NMR (500 MHz, $CDCl_3$) spectrum of compound **1**.

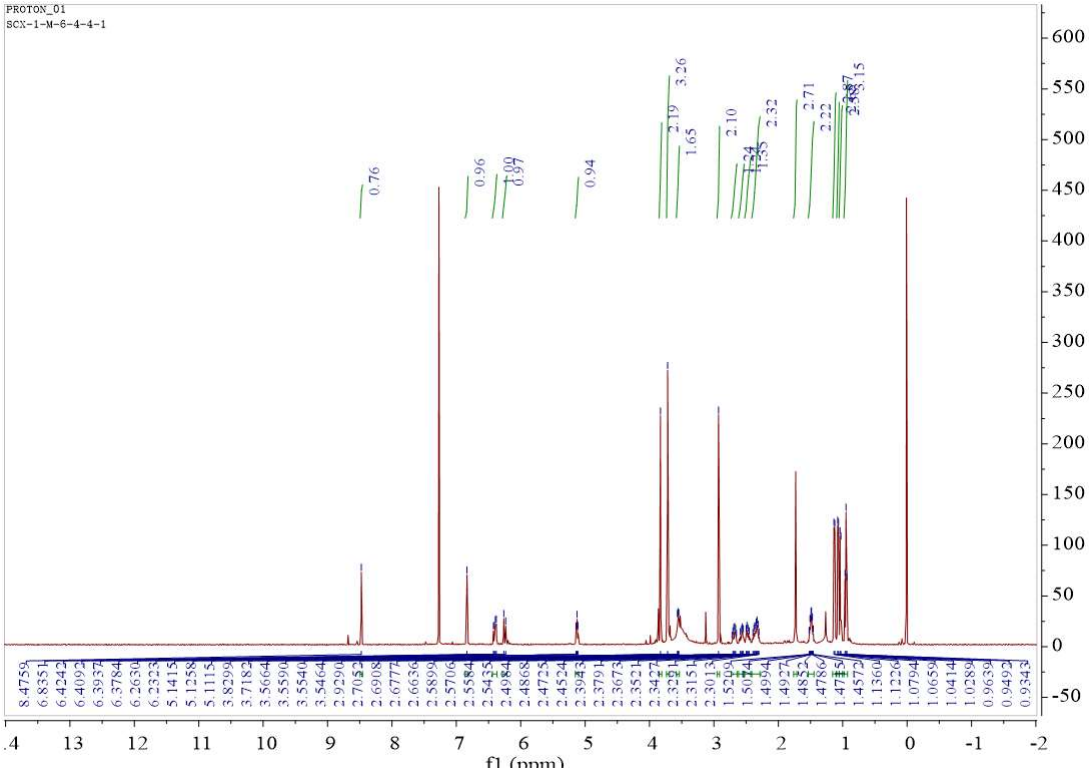


Figure S4. ^{13}C NMR (125 MHz, $CDCl_3$) spectrum of compound **1**.

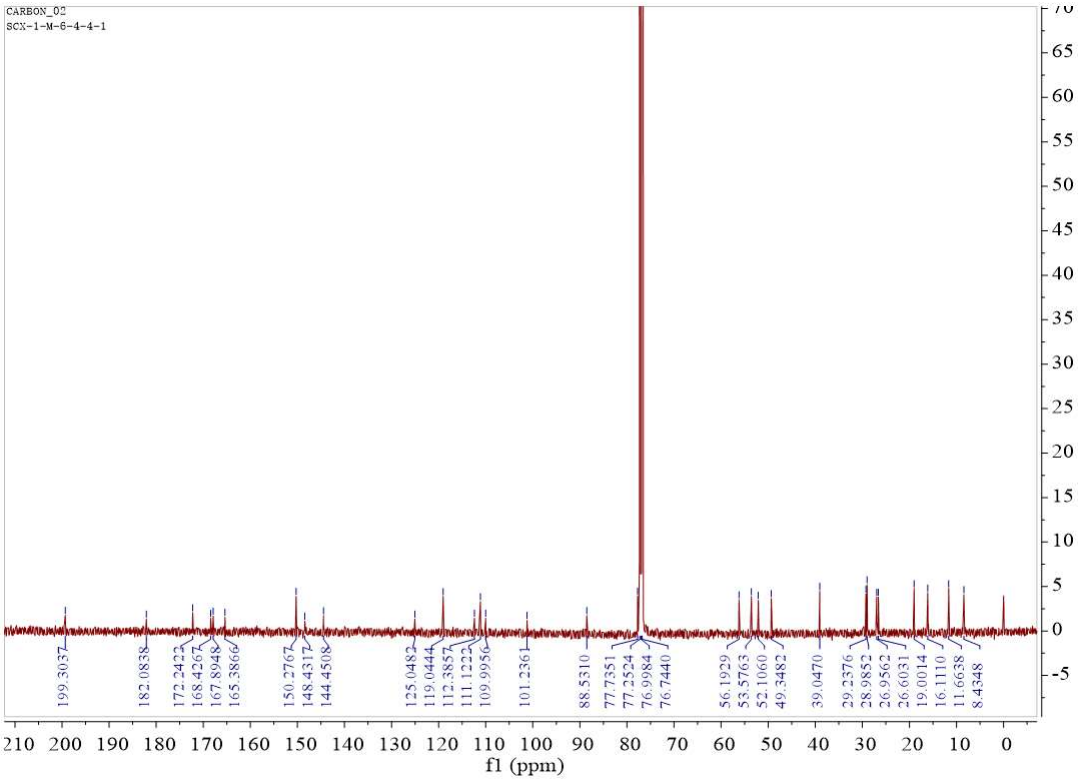


Figure S5. DEPT (125 MHz, $CDCl_3$) spectrum of compound **1**.

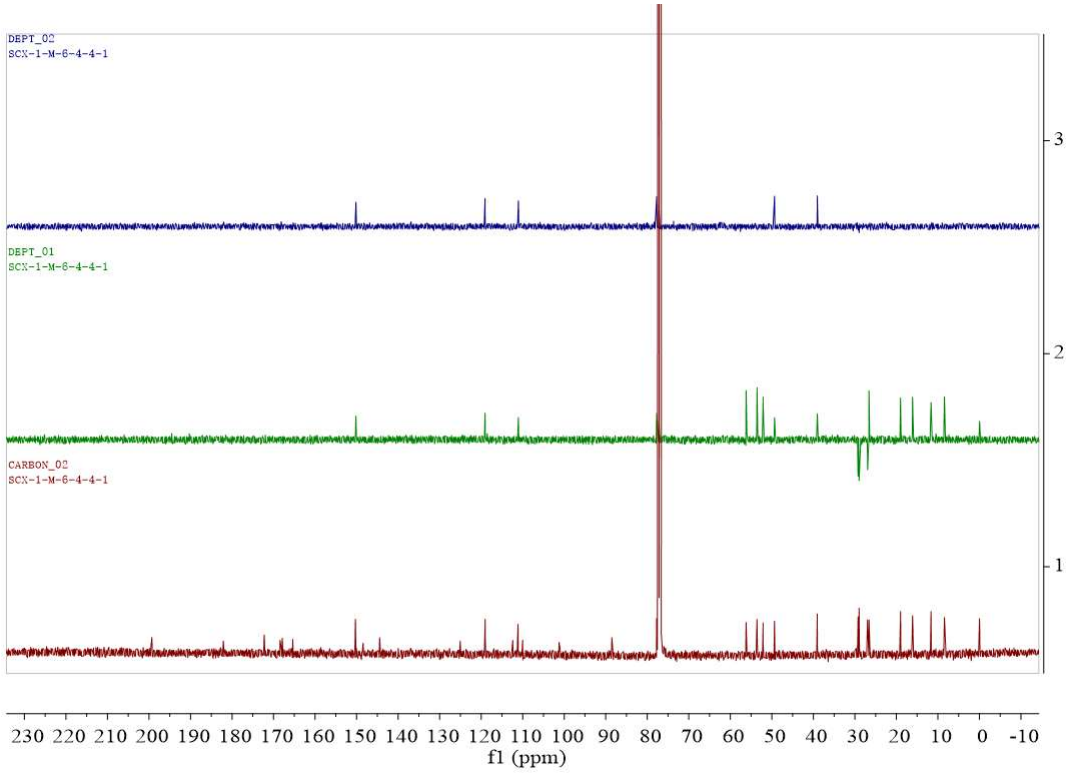


Figure S6. ^1H-^1H COSY spectrum of compound **1**.

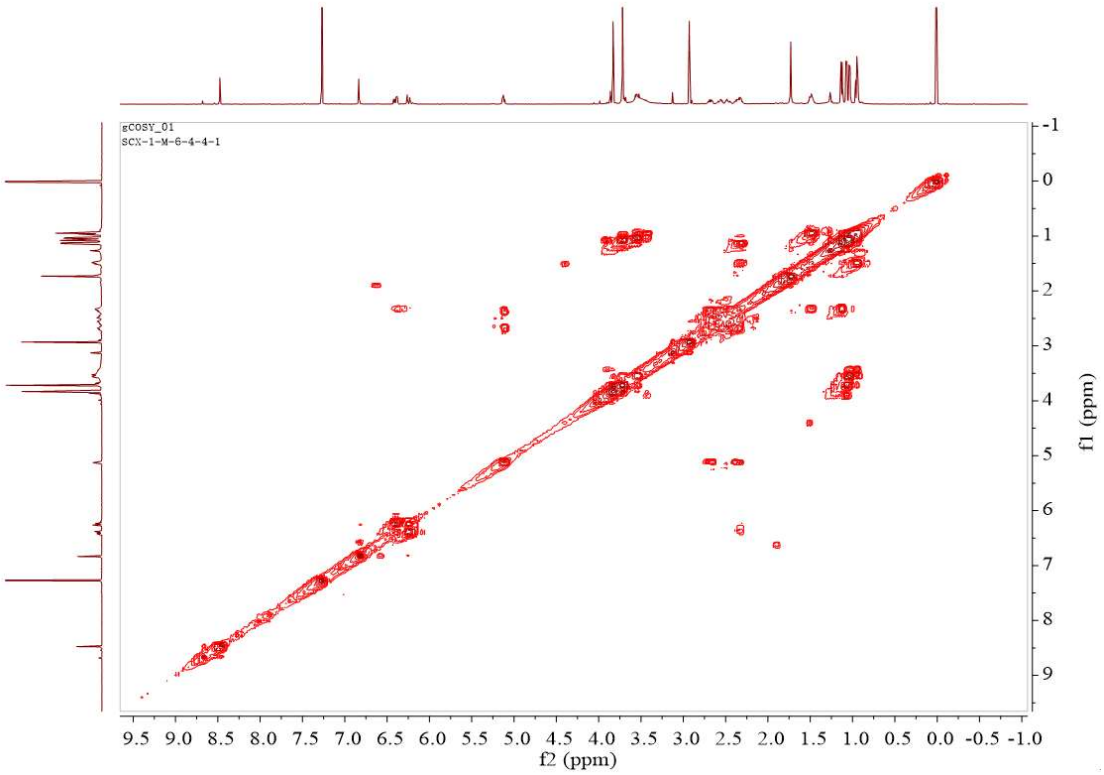


Figure S7. HSQC spectrum of compound **1**.

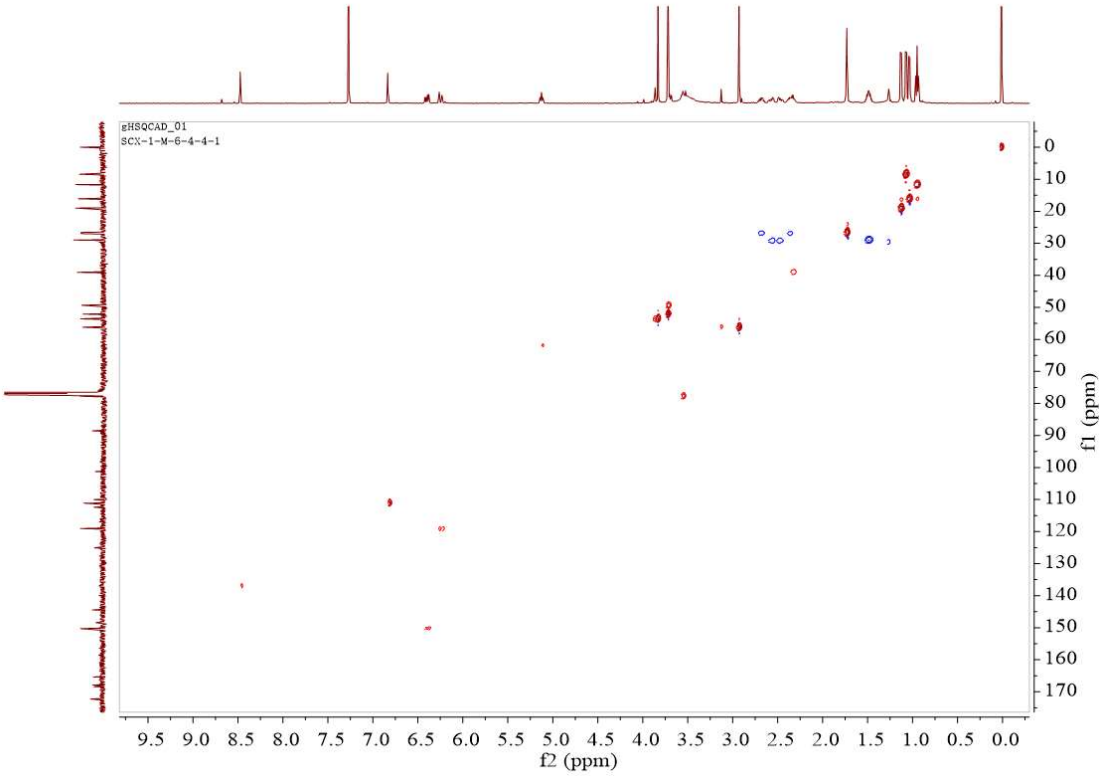


Figure S8. ^{1}H-^{13}C HMBC spectrum of compound **1**.

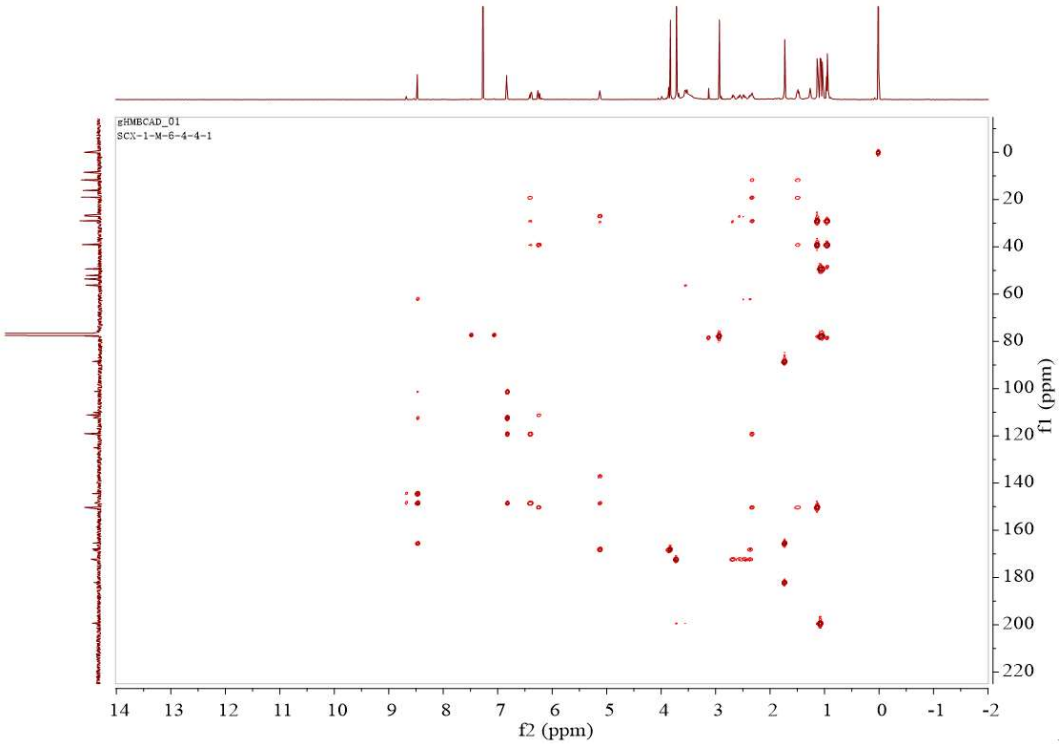


Figure S9. NOESY spectrum of compound **1**.

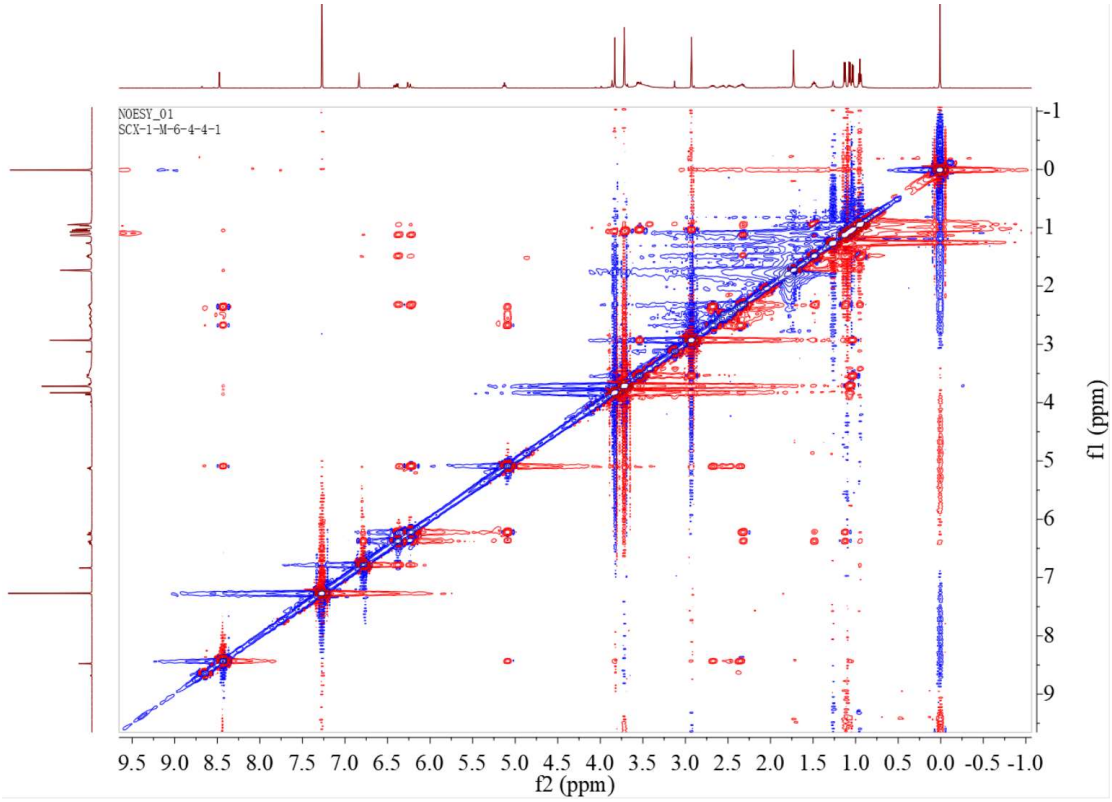


Figure S10. HRESIMS spectrum of compound **1**.

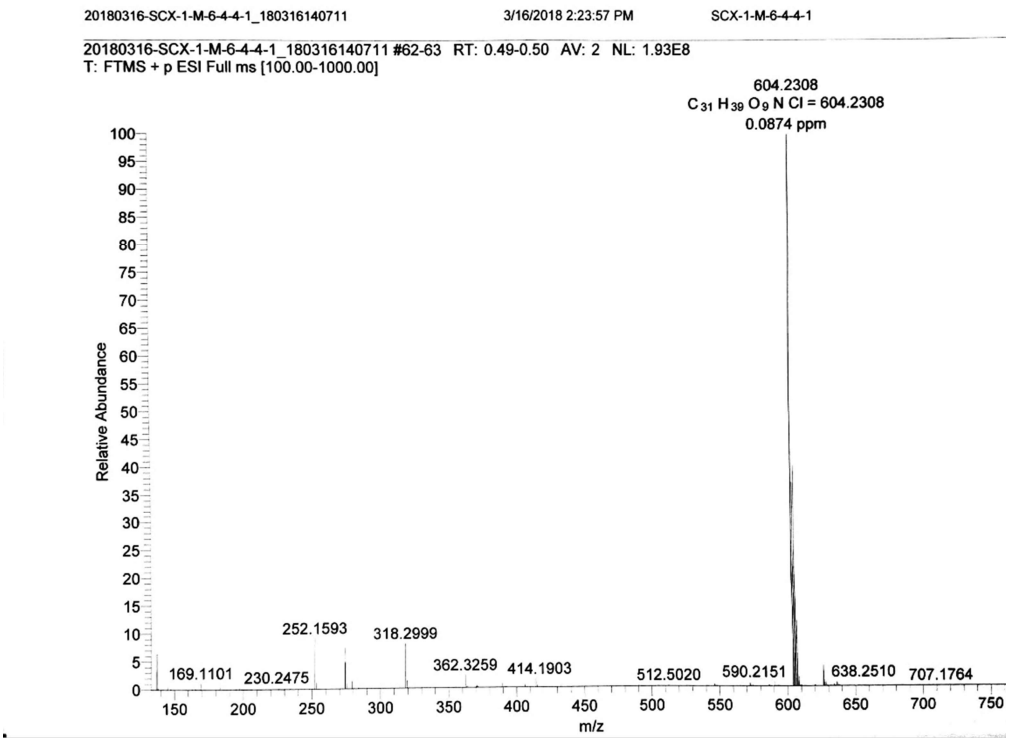


Figure S11. IR spectrum of compound **1**.

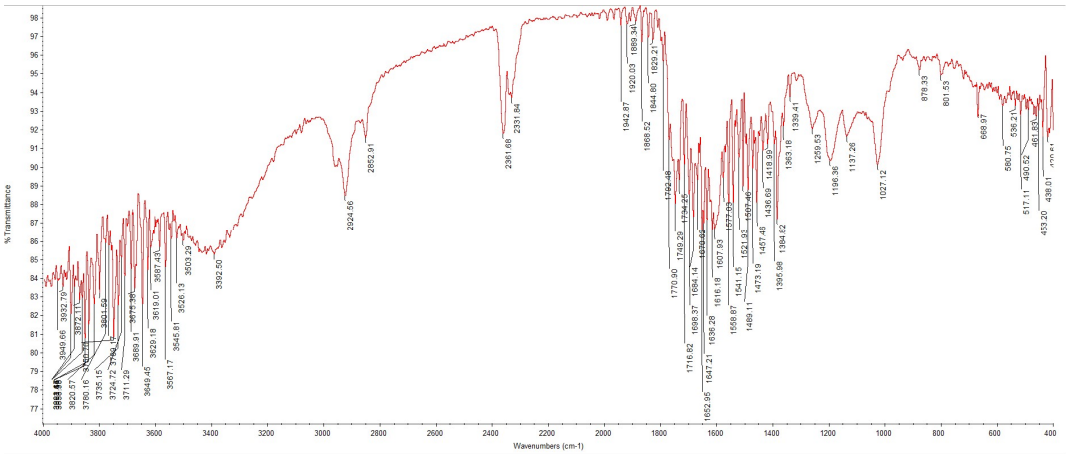


Figure S12. UV spectrum of compound **1**.

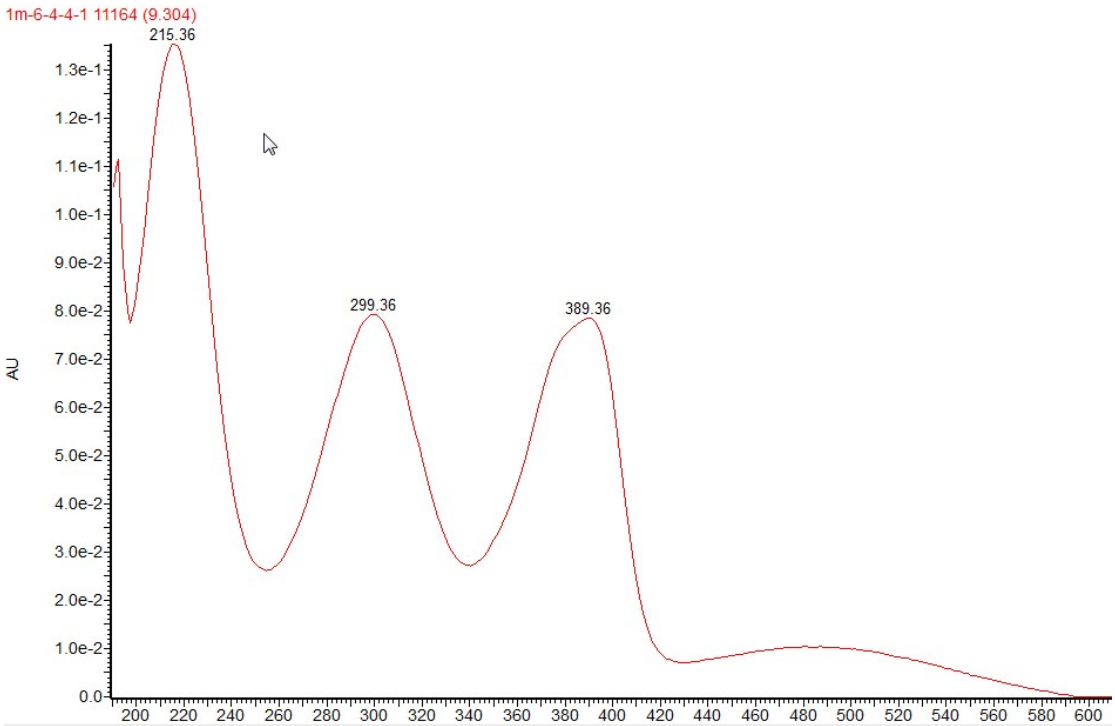


Figure S13. ^{1}H NMR (500 MHz, CD_3OD) spectrum of compound **2**.

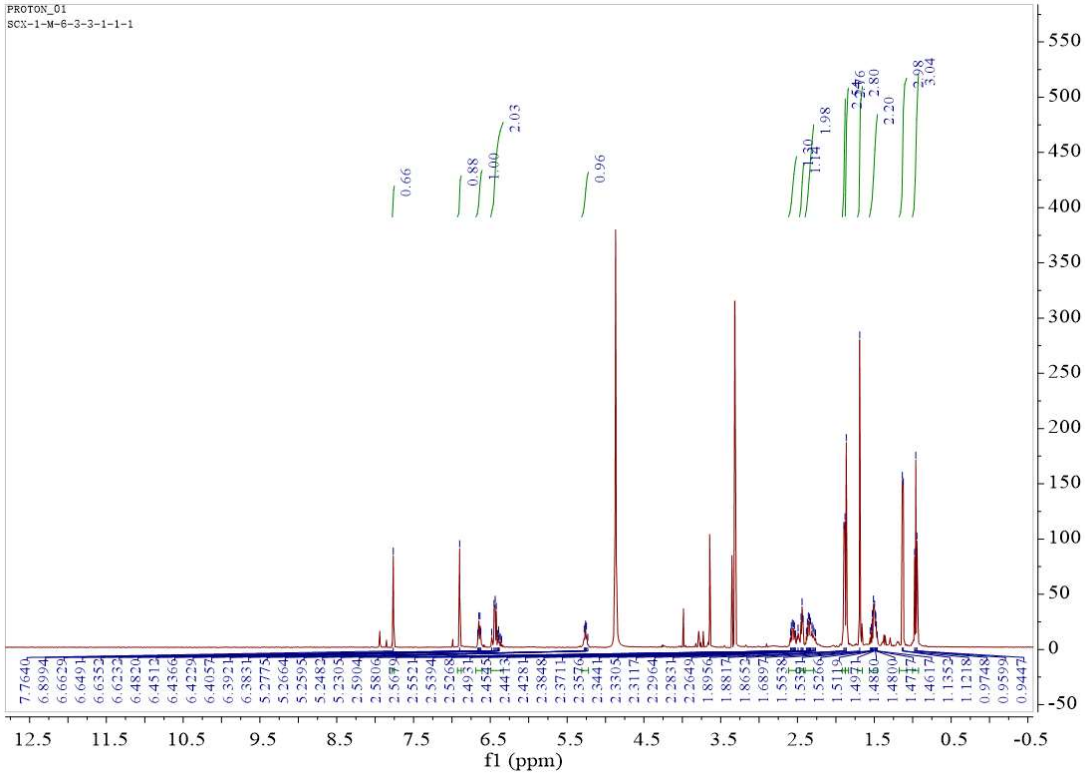


Figure S14. ^{13}C NMR (125 MHz, CD_3OD) spectrum of compound **2**.

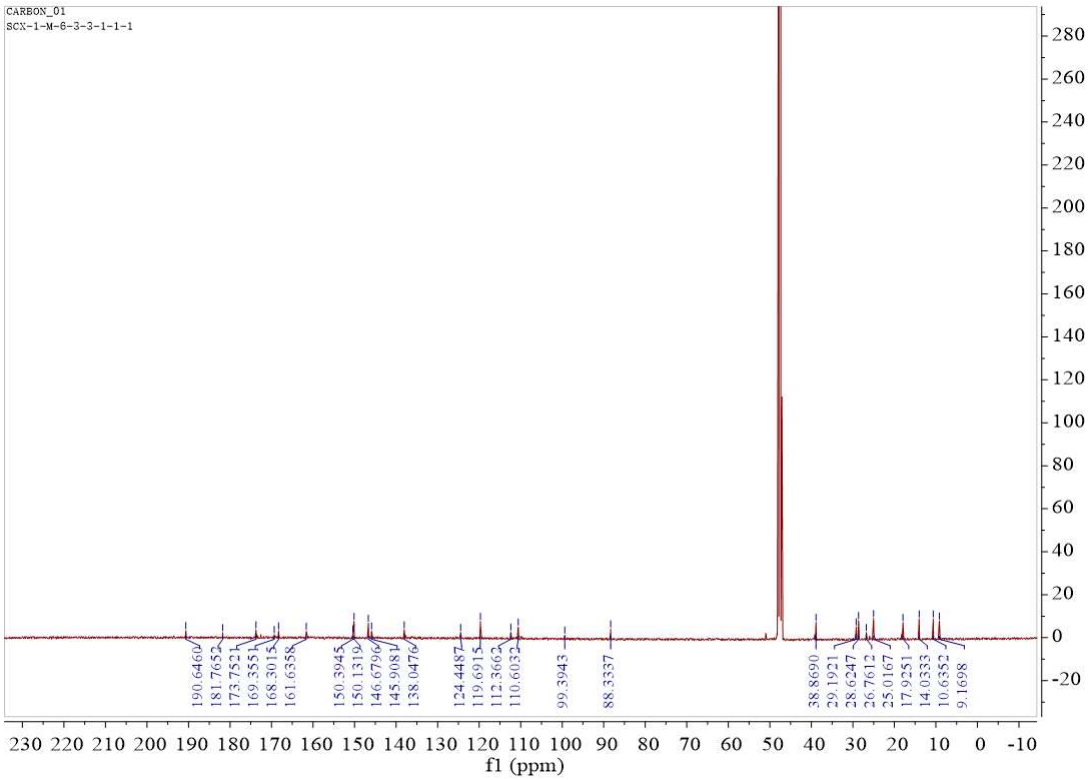


Figure S15. DEPT (125 MHz, CD_3OD) spectrum of compound **2**.

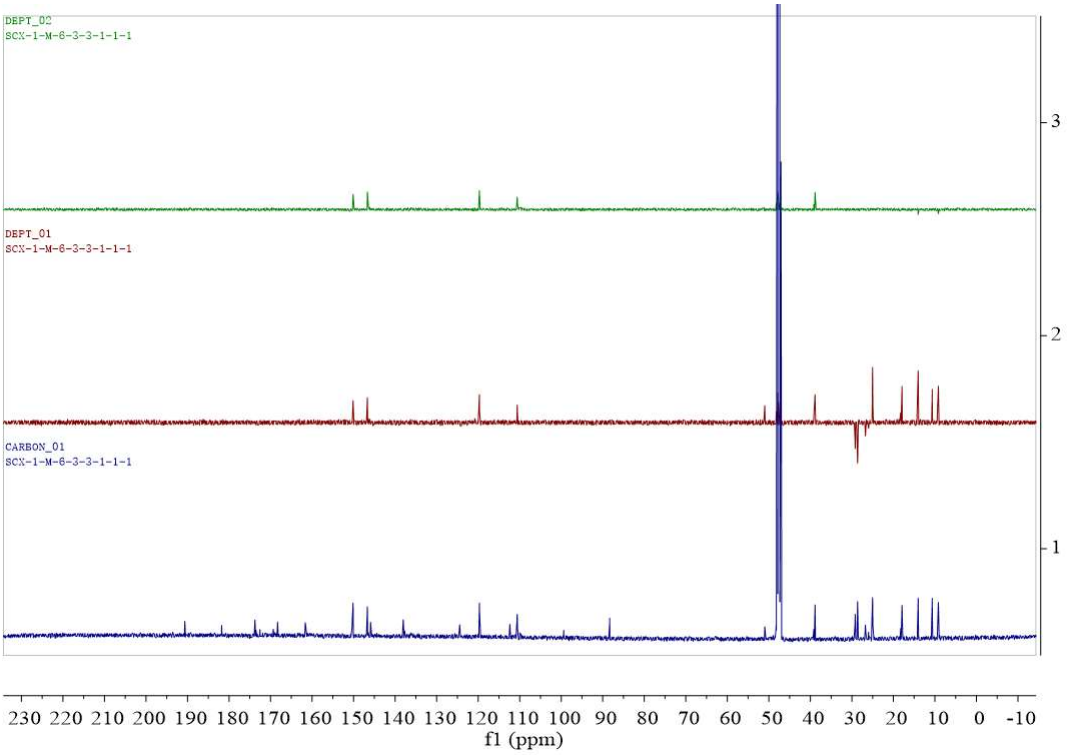


Figure S16. ^1H-^1H COSY spectrum of compound **2**.

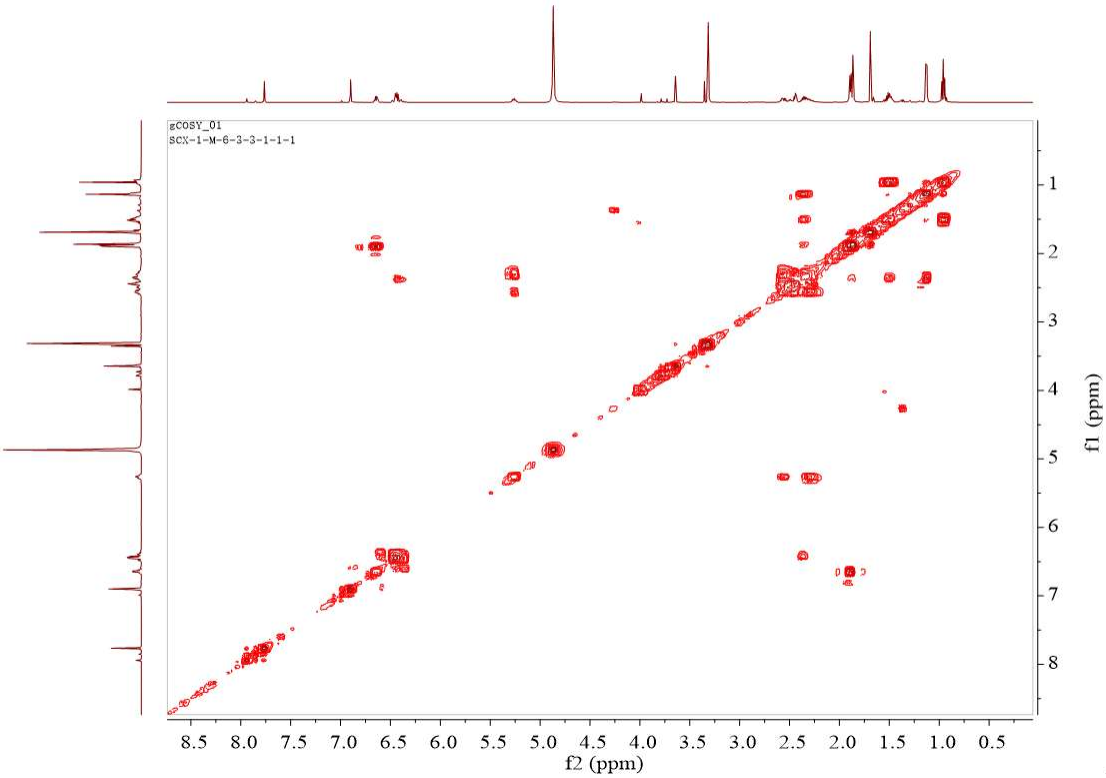


Figure S17. HSQC spectrum of compound **2**.

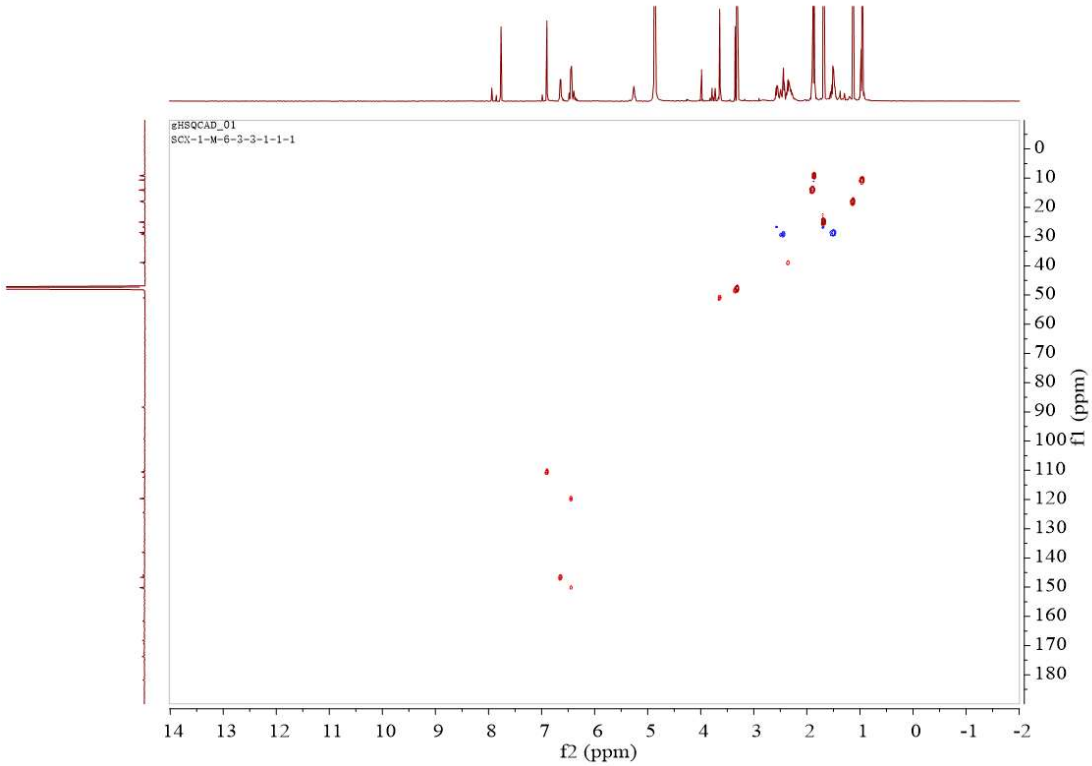
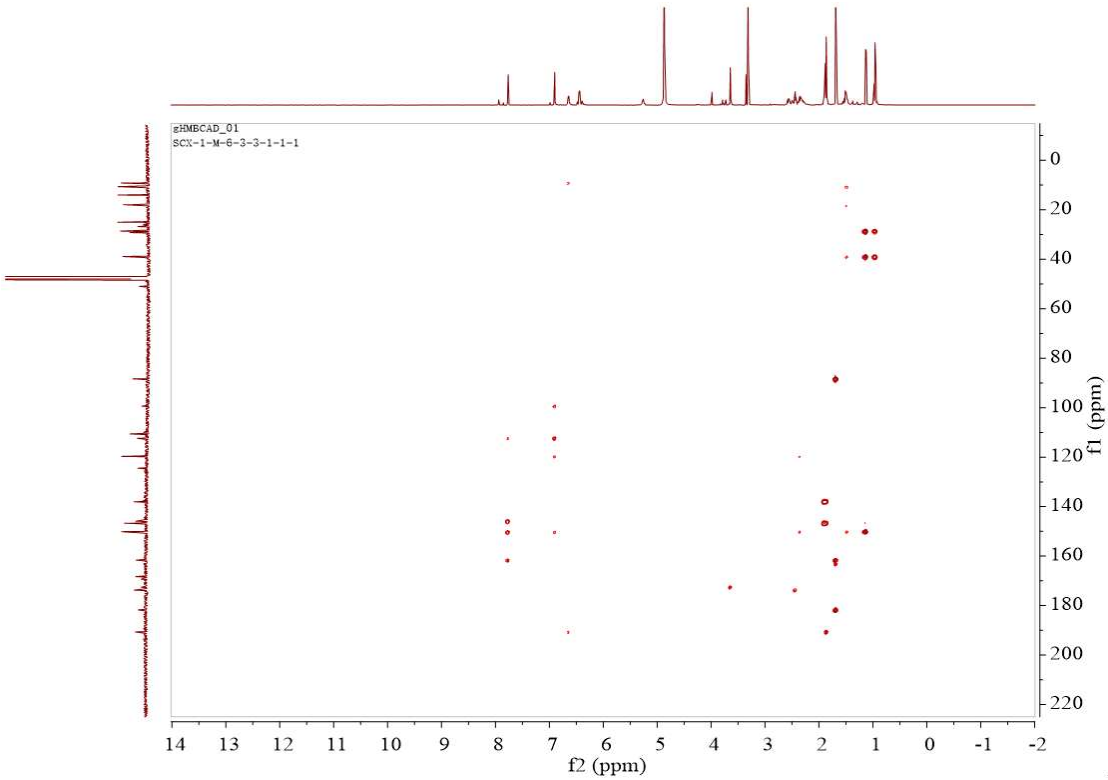


Figure S18. ^{1}H-^{13}C HMBC spectrum of compound **2**.



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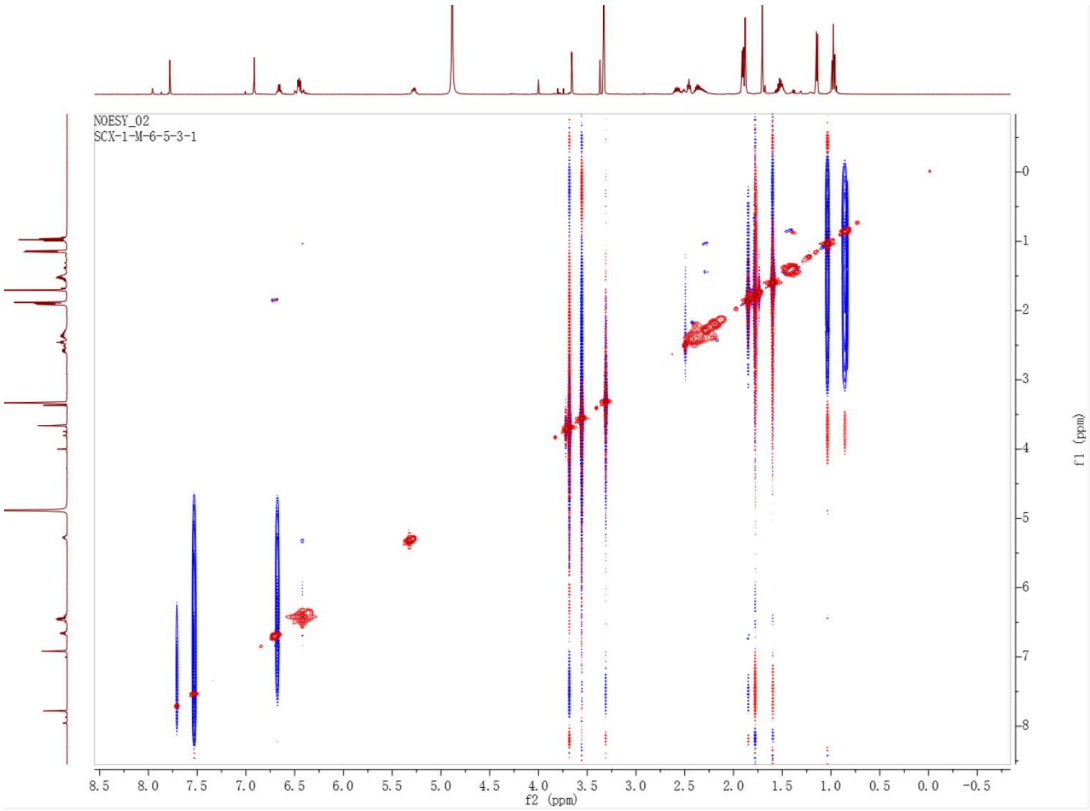

Figure S20. HRESIMS spectrum of compound **2**.

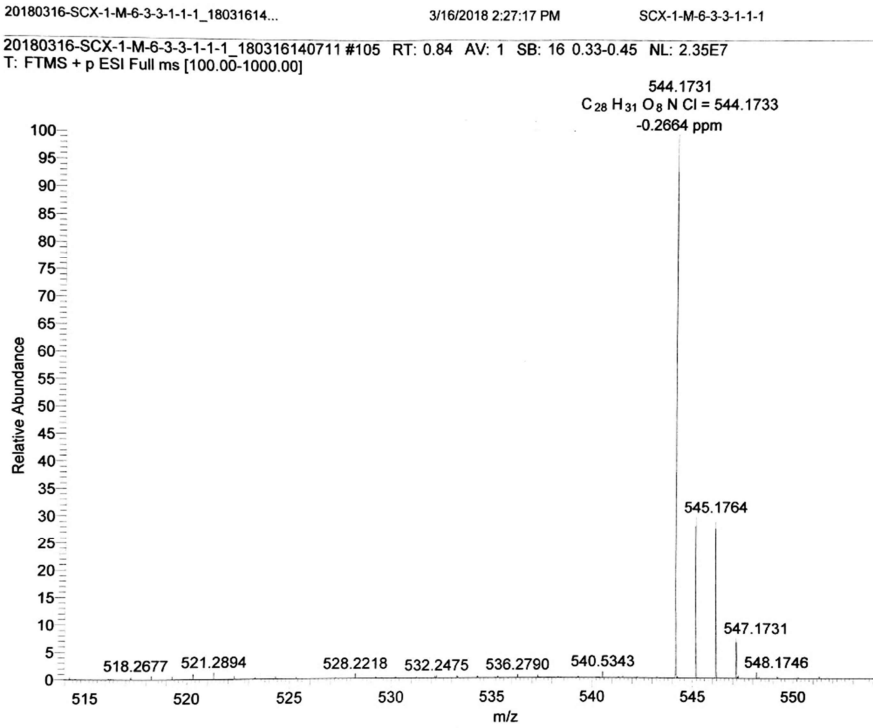

Figure S21. IR spectrum of compound **2**.

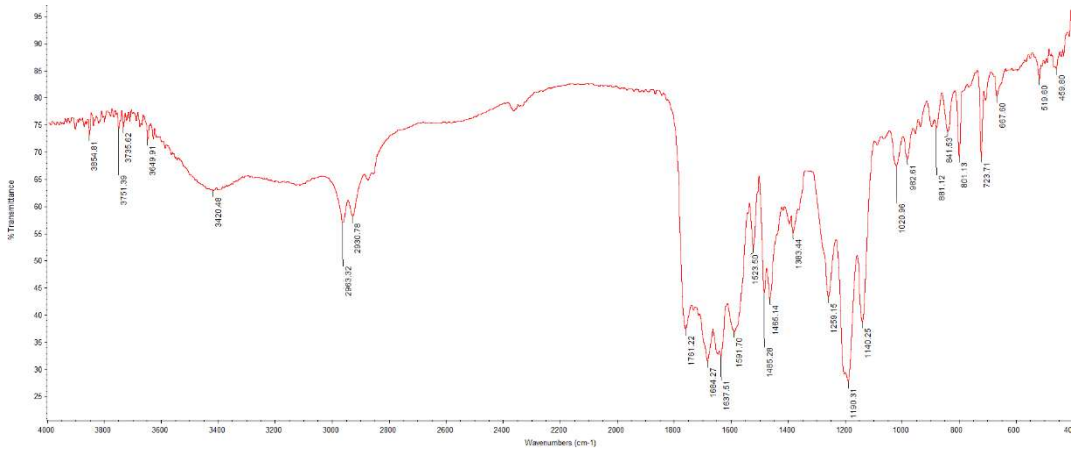

Figure S22. UV spectrum of compound **2**.

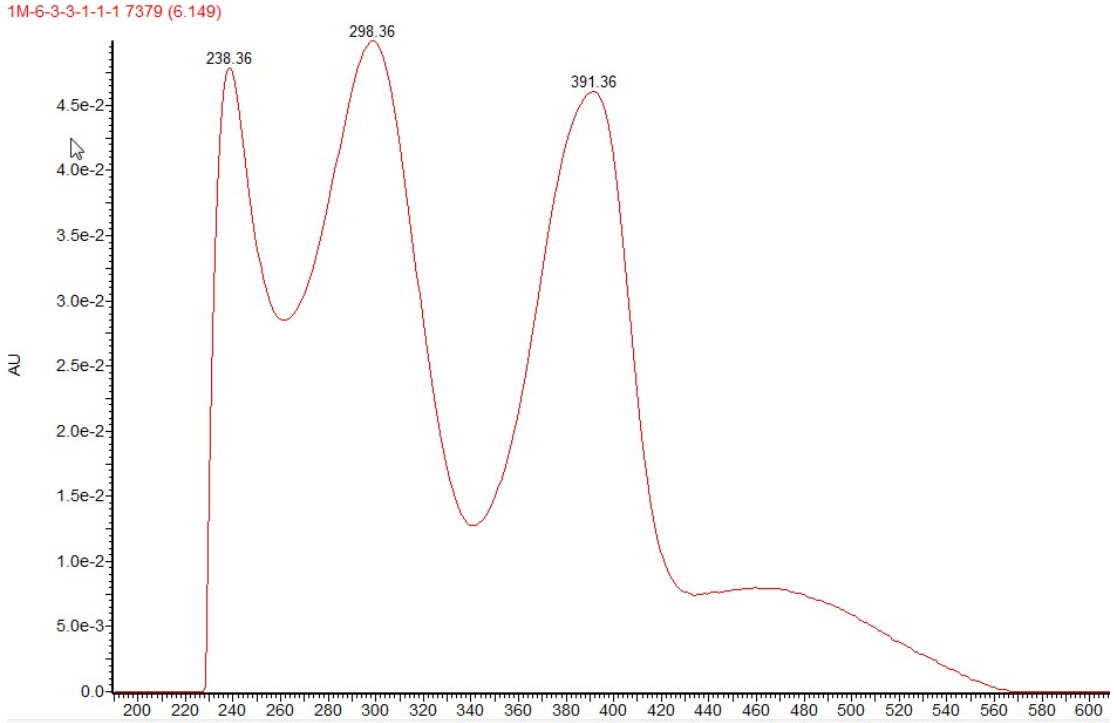

Figure S23. ^{1}H NMR (500 MHz, $CDCl_3$) spectrum of compound **3**.

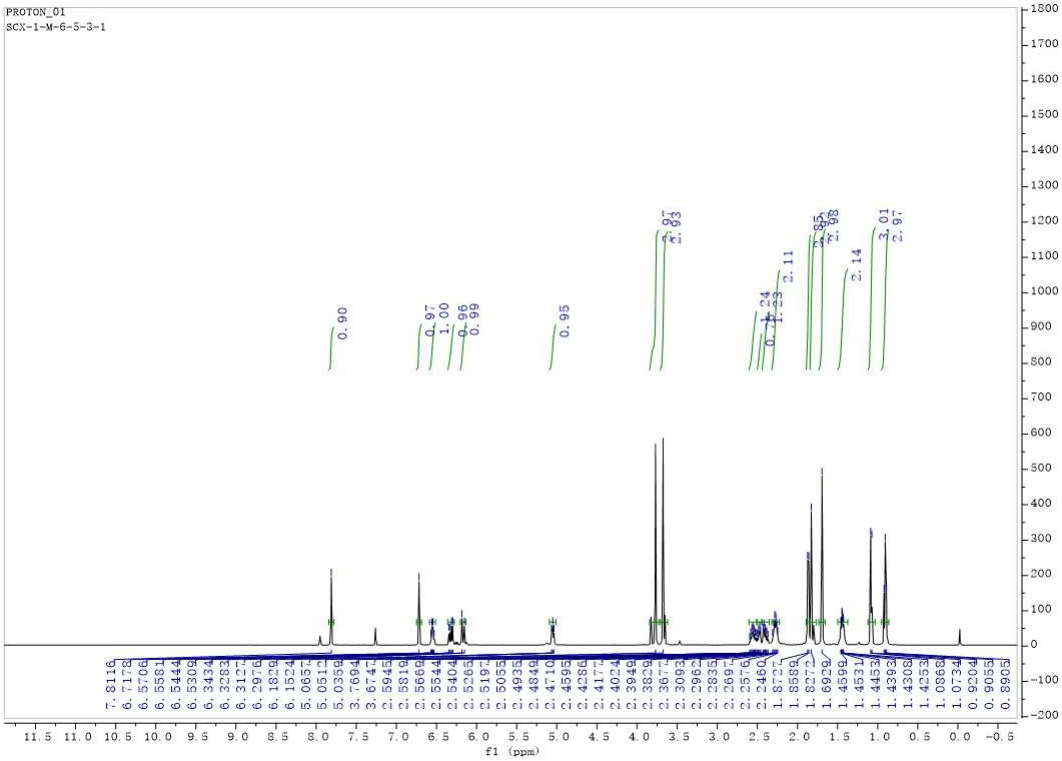

Figure S24. ^{13}C NMR (125 MHz, $CDCl_3$) spectrum of compound **3**.

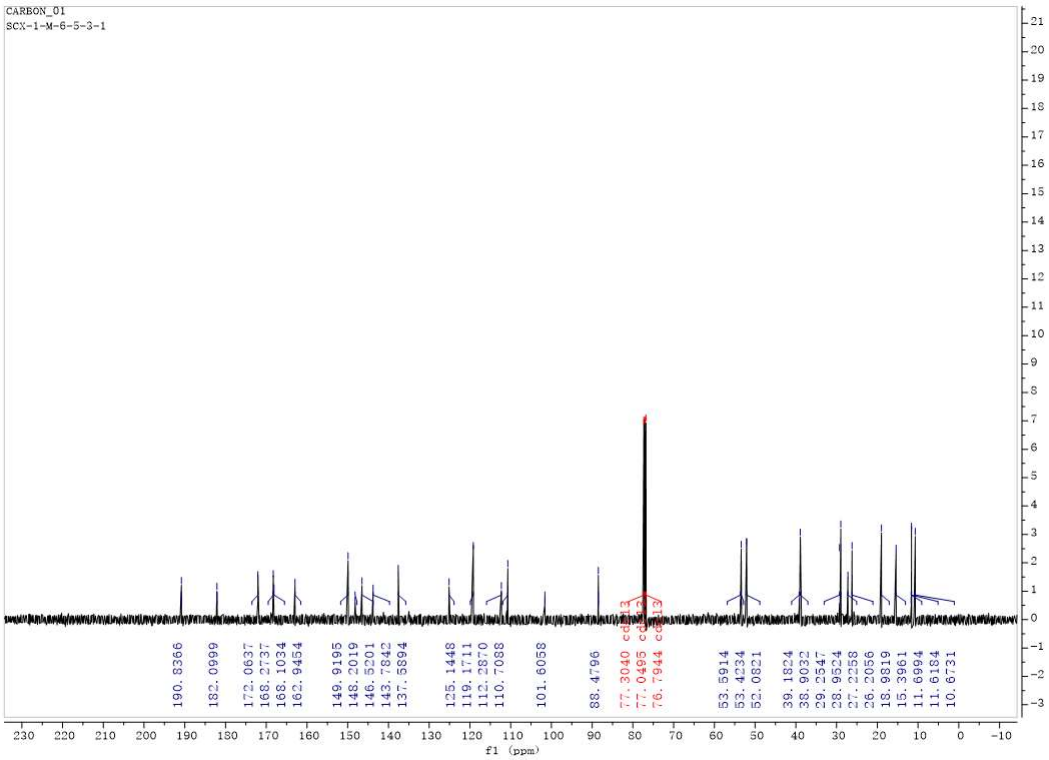

Figure S25. DEPT (125 MHz, $CDCl_3$) spectrum of compound **3**.

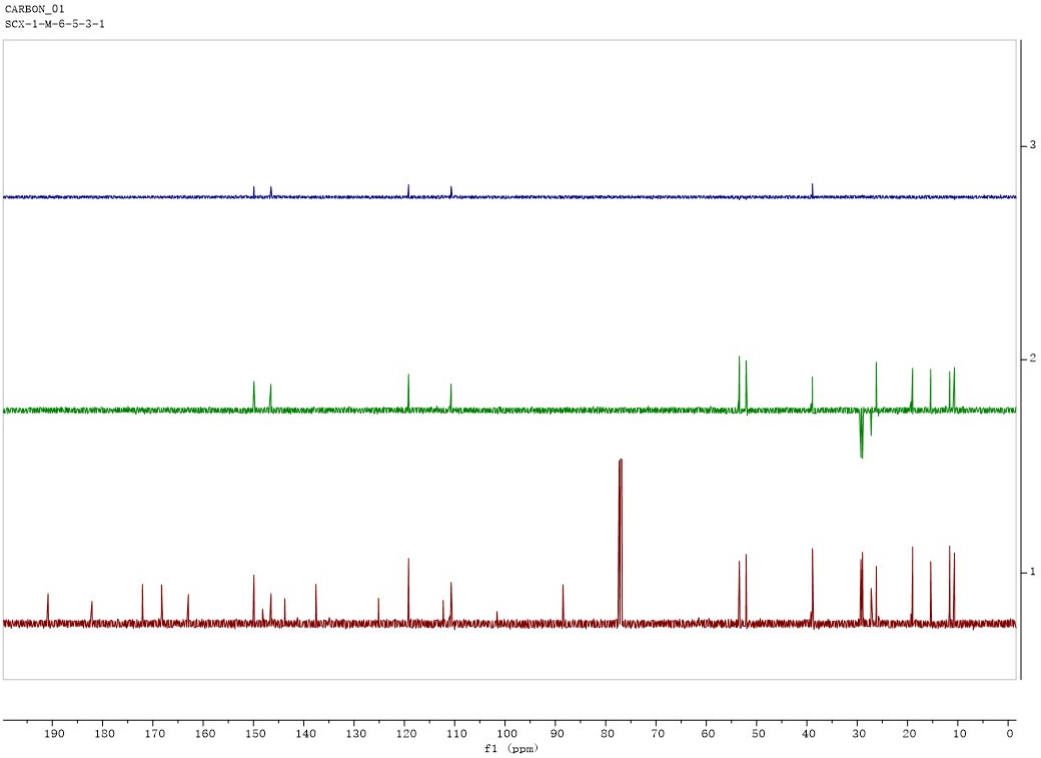

Figure S26. ^{1}H-^{1}H COSY spectrum of compound **3**.

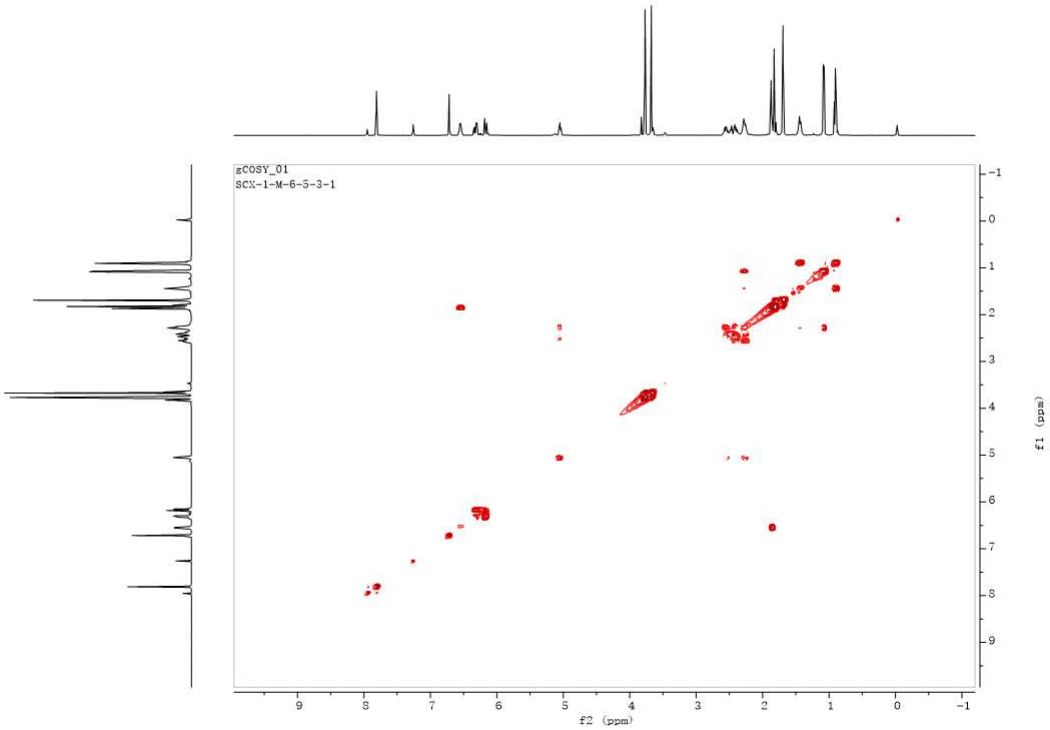

Figure S27. HSQC spectrum of compound **3**.

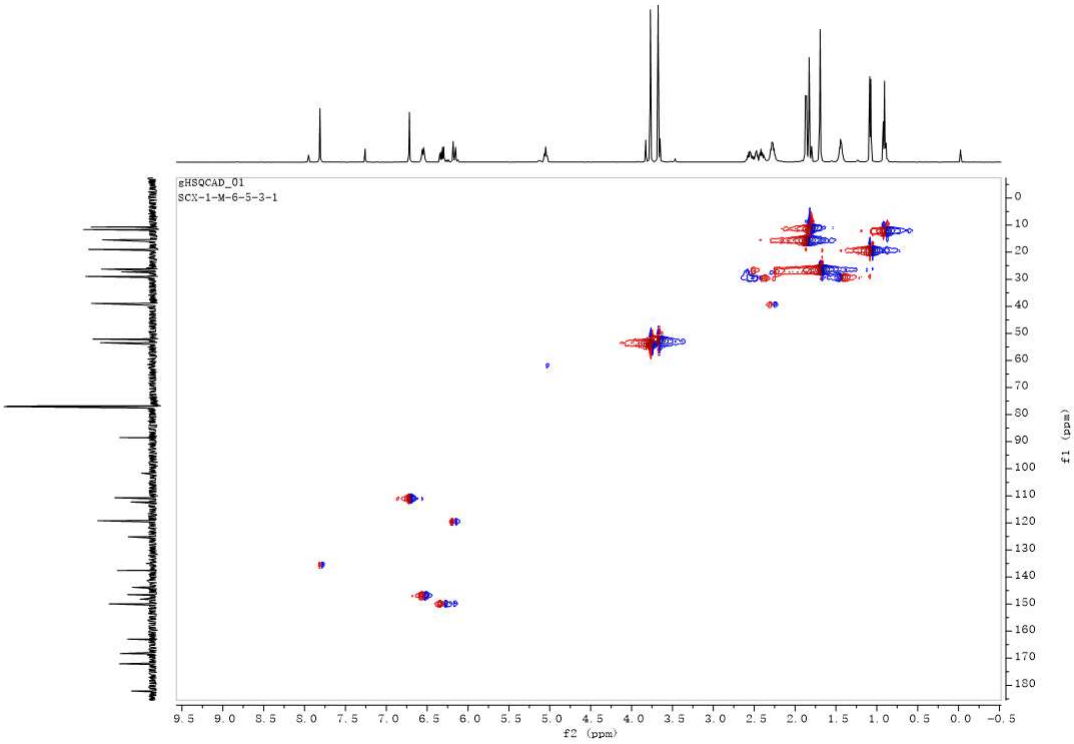

Figure S28. ^{1}H-^{13}C HMBC spectrum of compound **3**.

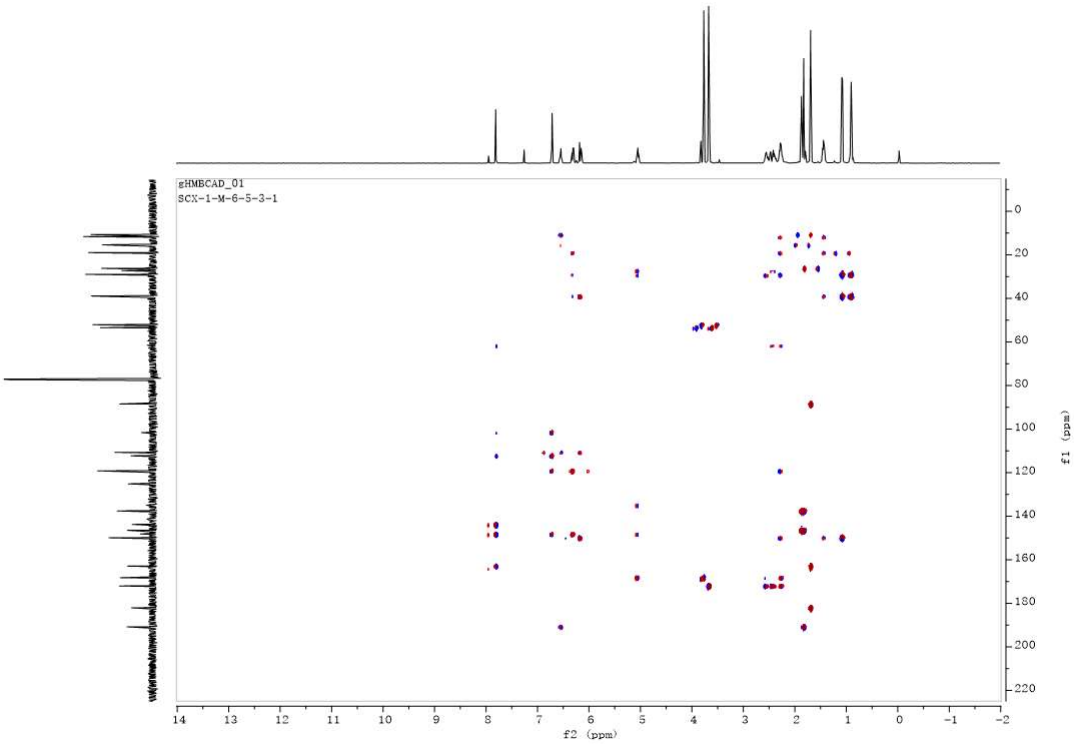

Figure S29. NOESY spectrum of compound **3**.

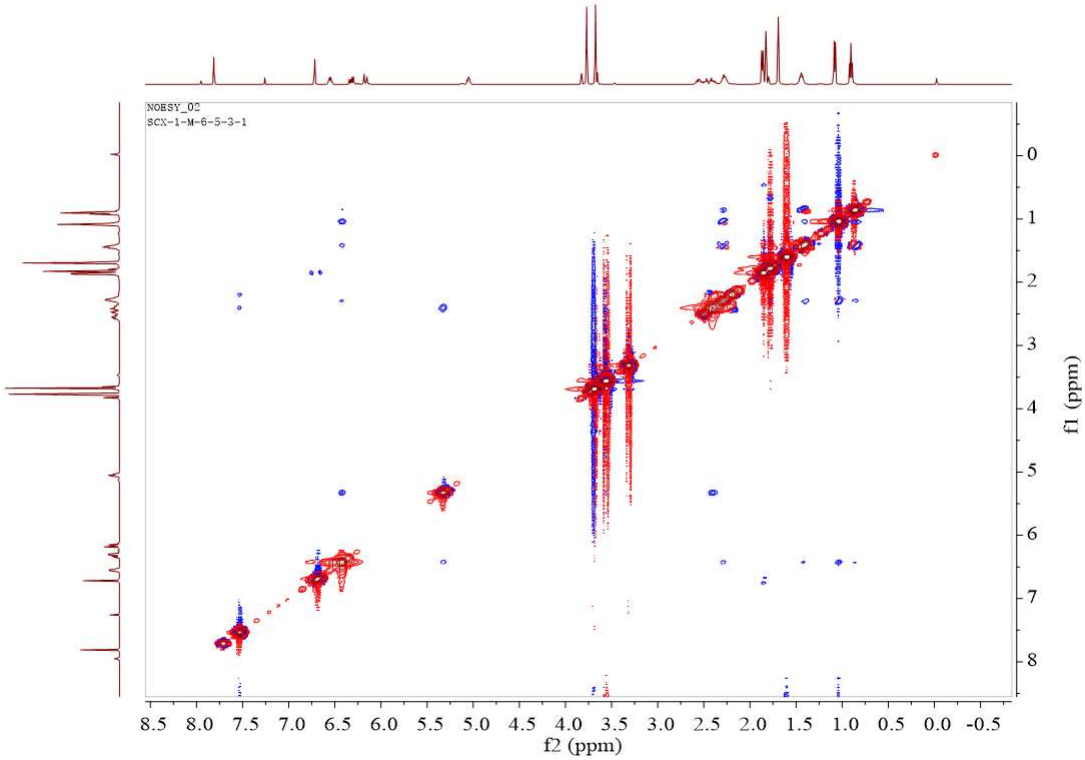

Figure S30. HRESIMS spectrum of compound **3**.

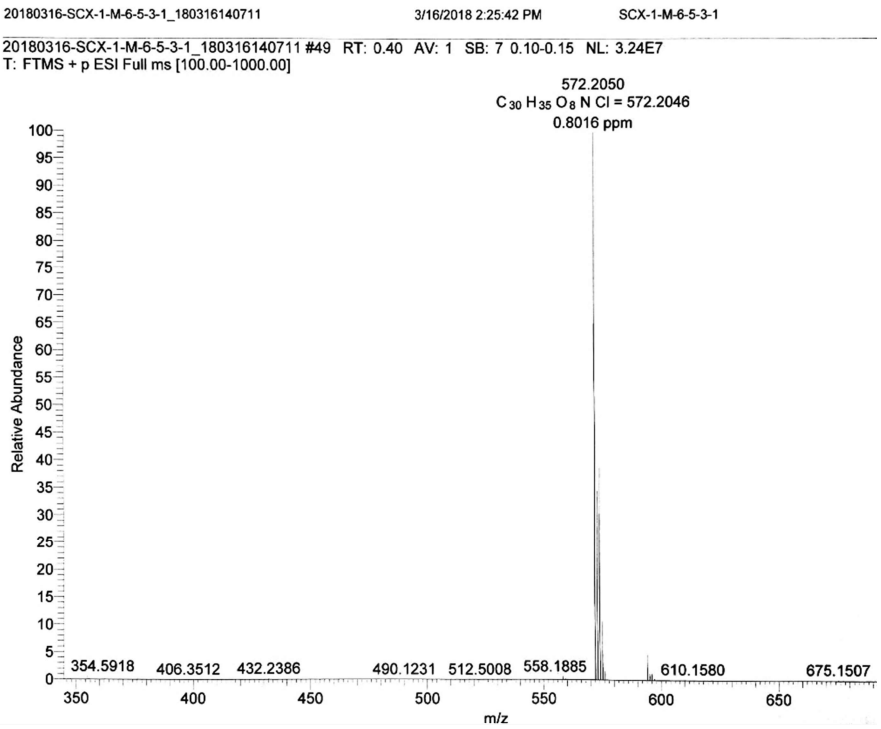

Figure S31. IR spectrum of compound **3**.

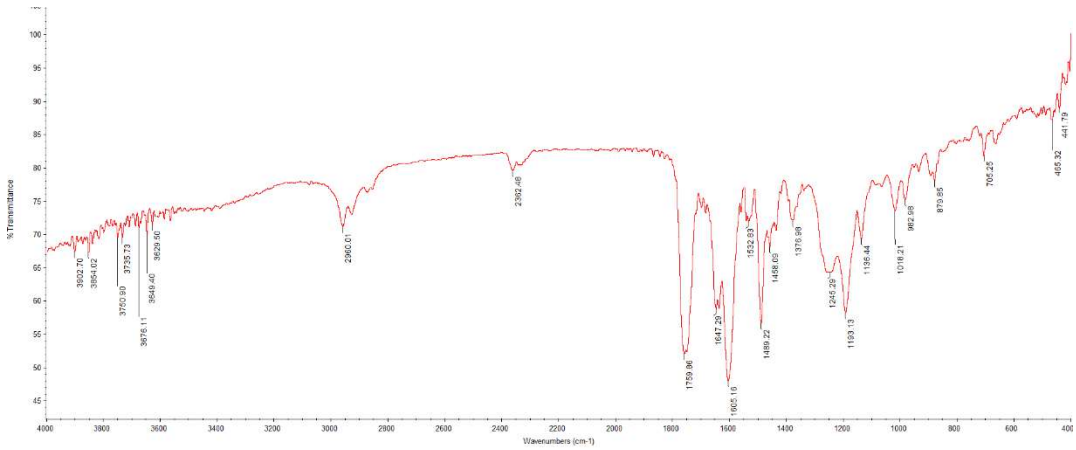

Figure S32. UV spectrum of compound **3**.

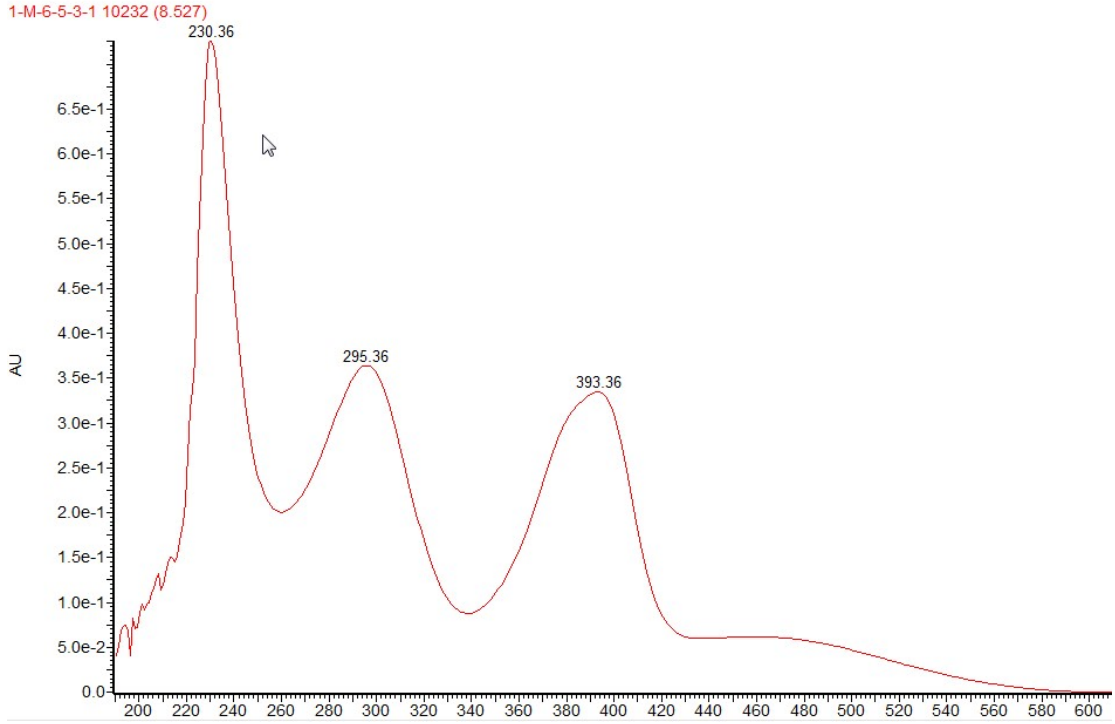

Figure S33. HPLC analysis of the FDAA derivatives of the compounds **1**, **3** and L-Me-glutamate and D-Me-glutamate.

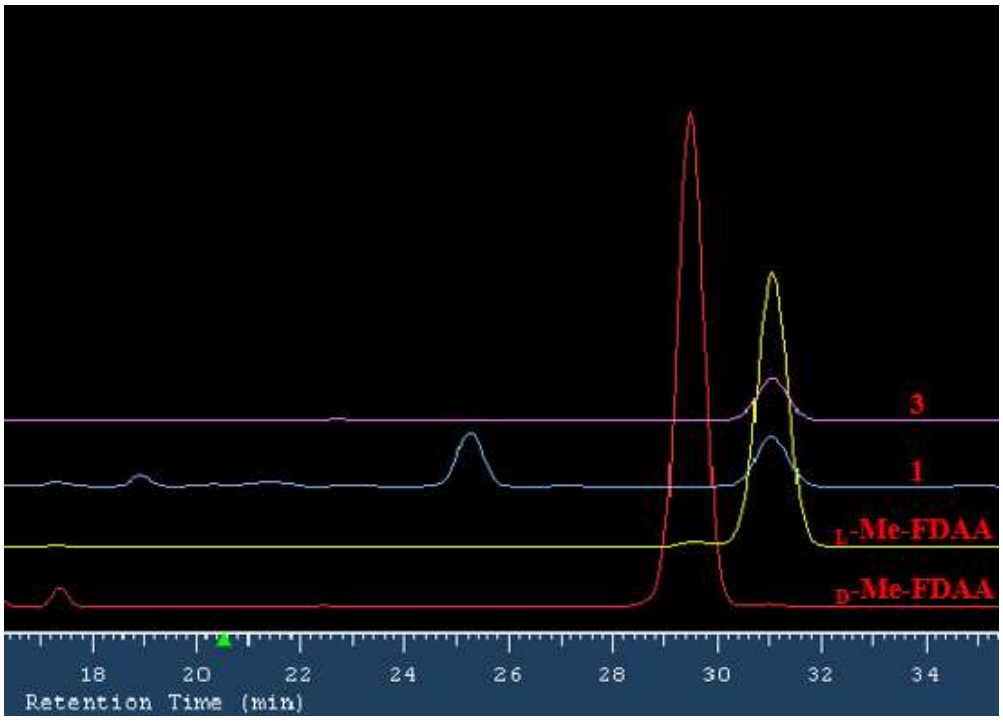

Figure S34. HPLC analysis of the FDAA derivatives of the compound **2** and L-glutamate and D-glutamate.

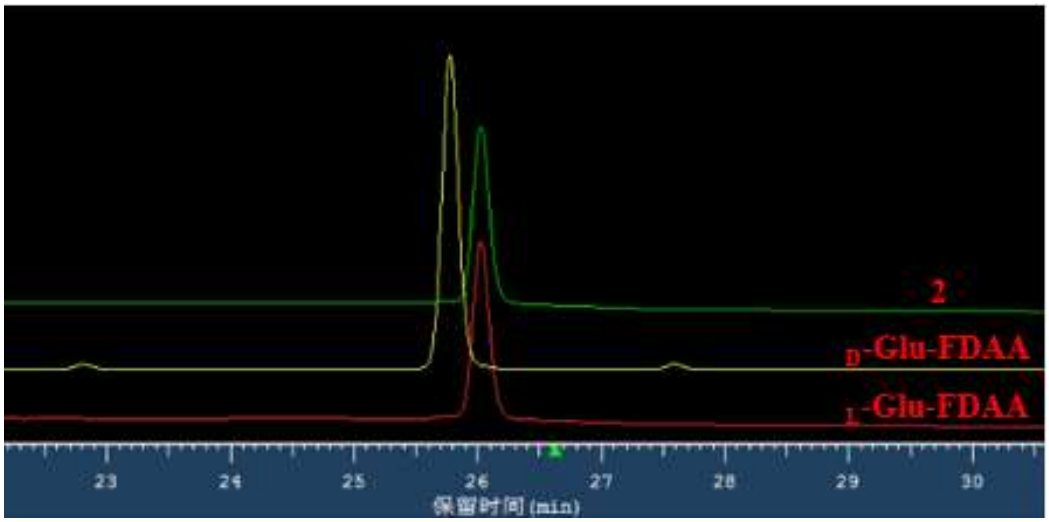

Table S1. Cytotoxicities of compounds **1-5** against twelve cancer cell Lines.

Compounds	IC$_{50}$ (μM)											
	HL-60	K562	BEL-7402	HCT-116	HeLa	L-02	MGC-803	HO8910	SH-SY5Y	NCl-H1975	U87	MDA-MB-231
1	10.3	20.3	23.9	>50	>50	>50	>50	>50	>50	>50	>50	>50
2	>50	>50	>50	>50	>50	>50	>50	>50	>50	>50	>50	>50
3	11.1	11.7	10.9	11.3	22.1	18.2	6.6	9.7	26.5	11.2	18.3	13.2
4	6.4	11.1	17.9	6.1	20.3	15.2	15.3	12.1	23.4	18.3	27.1	22.7
5	6.6	12.3	16.8	5.7	13.2	9.1	9.6	8.8	19.4	12.1	17.6	26.6
ADM	0.1	0.3	0.4	0.2	0.6	0.4	0.2	0.4	0.2	0.3	0.1	0.2

Figure S35. ^{1}H NMR (500 MHz, $CDCl_3$) spectrum of compound **6**.

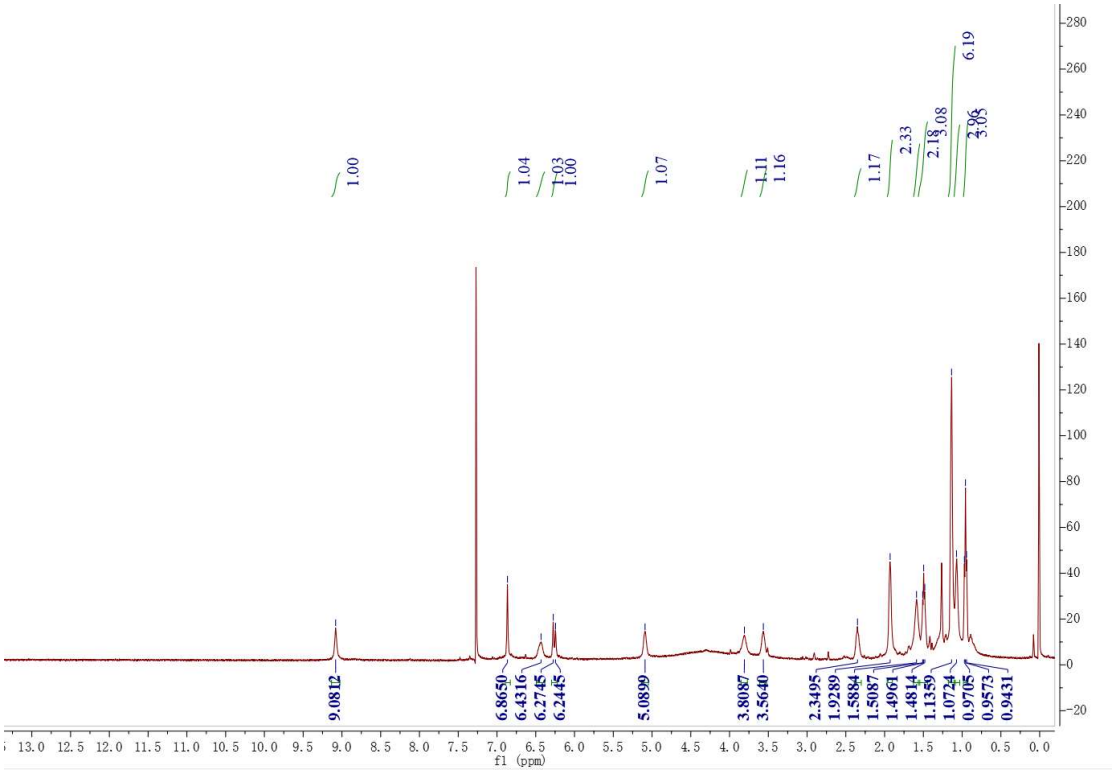

Figure S36. HRESIMS spectrum of compound **6**.

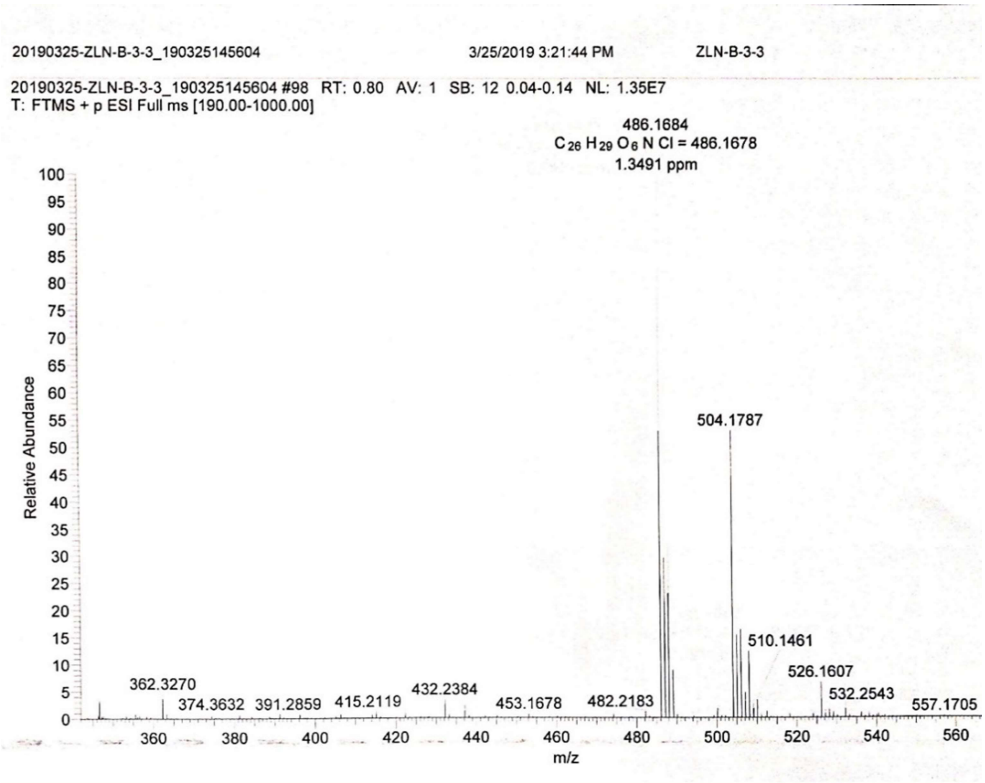

Figure S37. ^{1}H NMR (600 MHz, DMSO-d_6) spectrum of compound **7**.

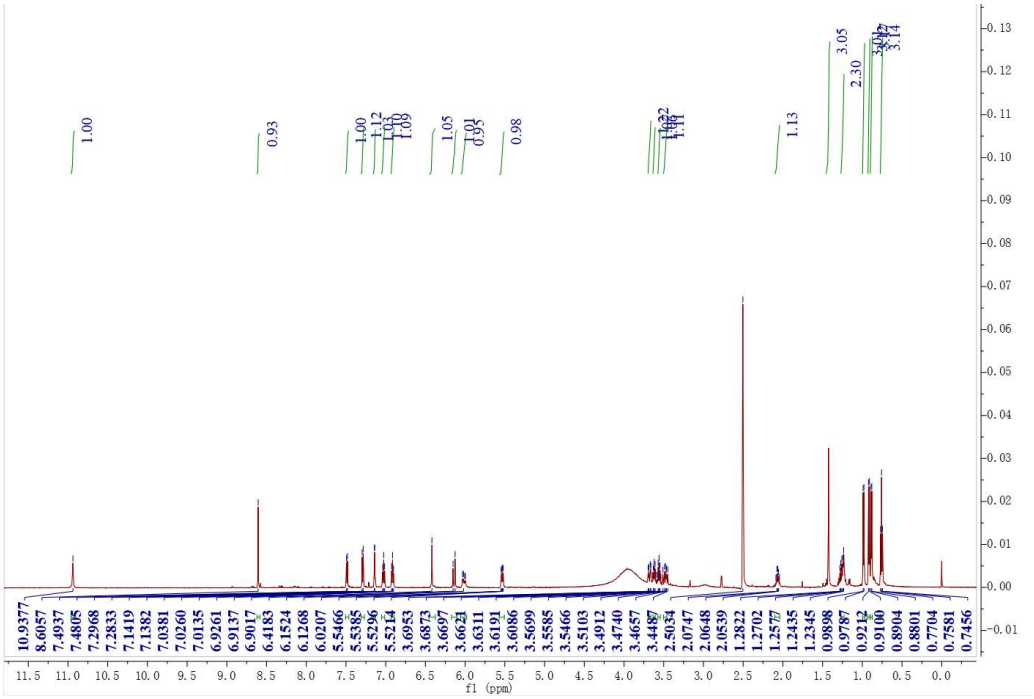

Figure S38. HRESIMS spectrum of compound **7**.

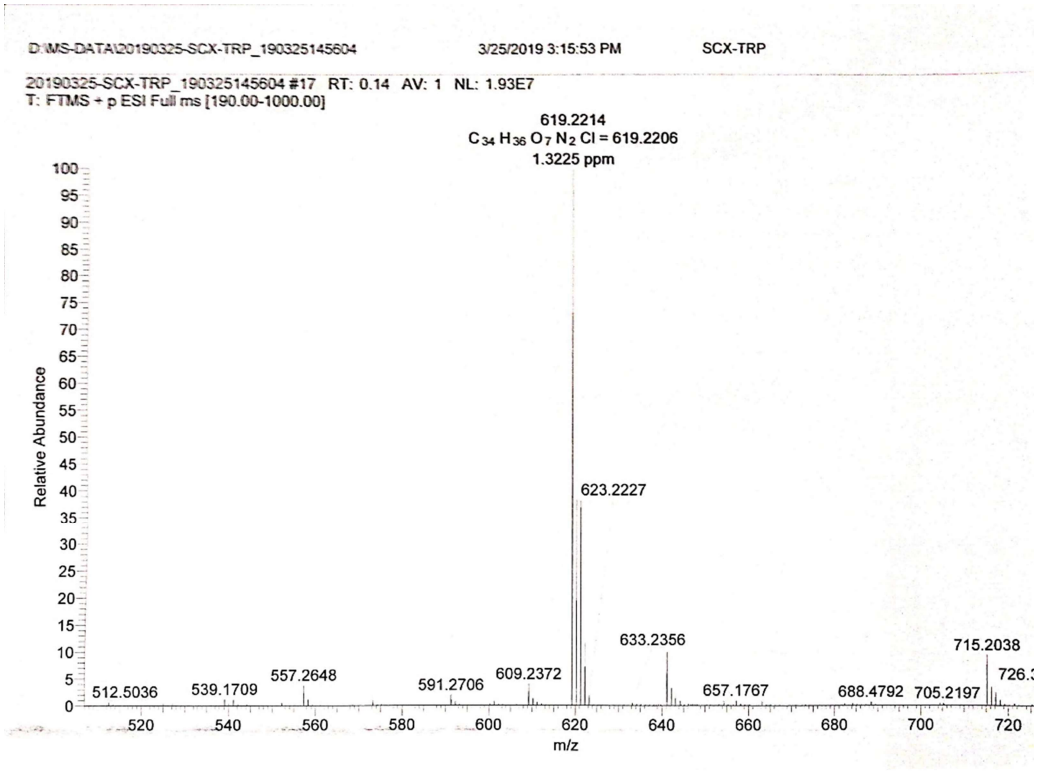

Figure S39. ^{1}H NMR (600 MHz, DMSO-d_6) spectrum of compound **8**.

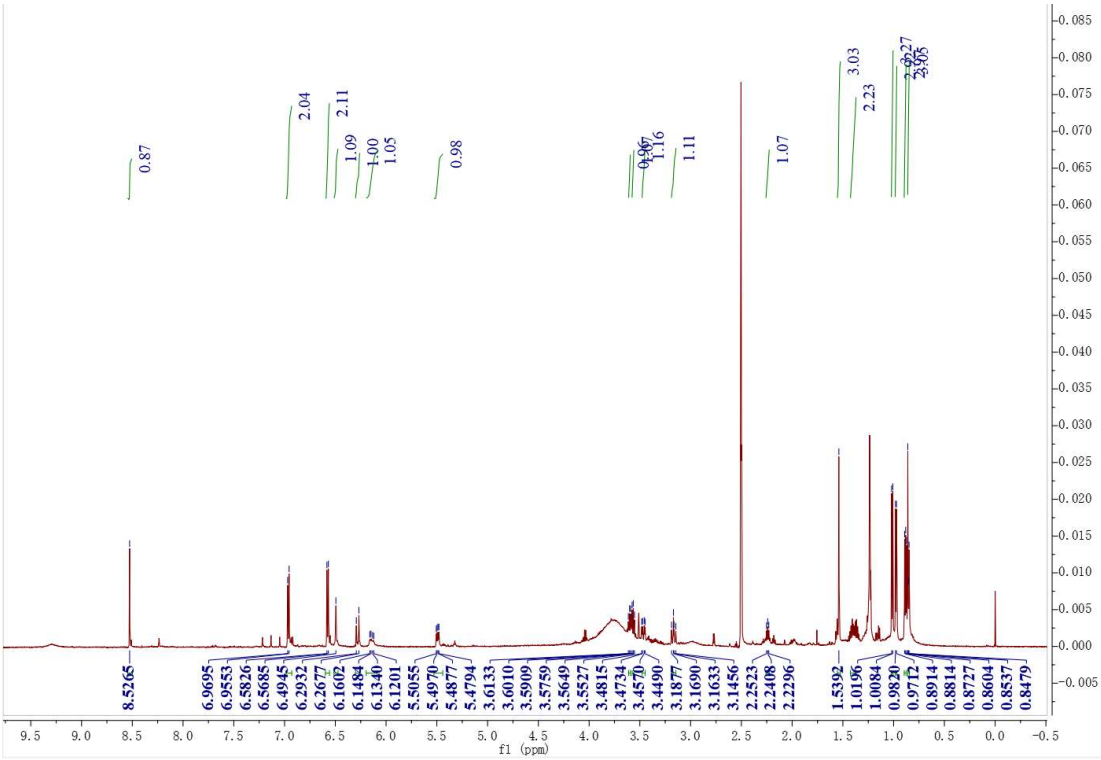

Figure S40. HRESIMS spectrum of compound **8**.

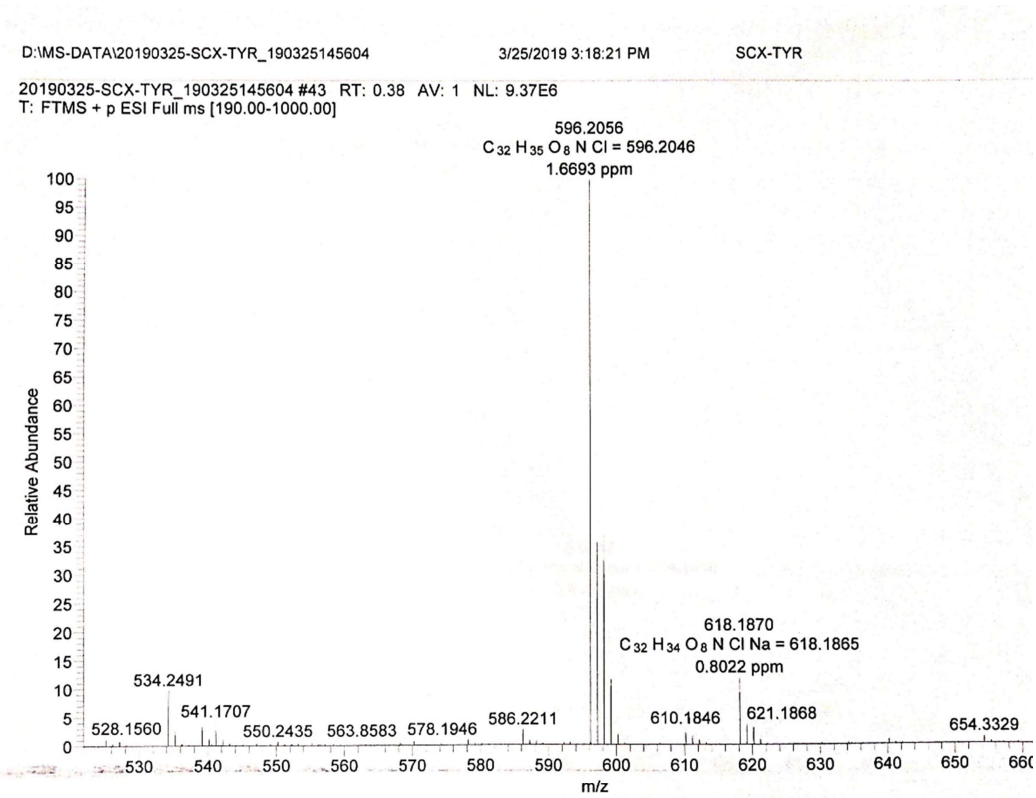

Figure S41. ^{1}H NMR (500 MHz, DMSO-d_6) spectrum of compound **9**.

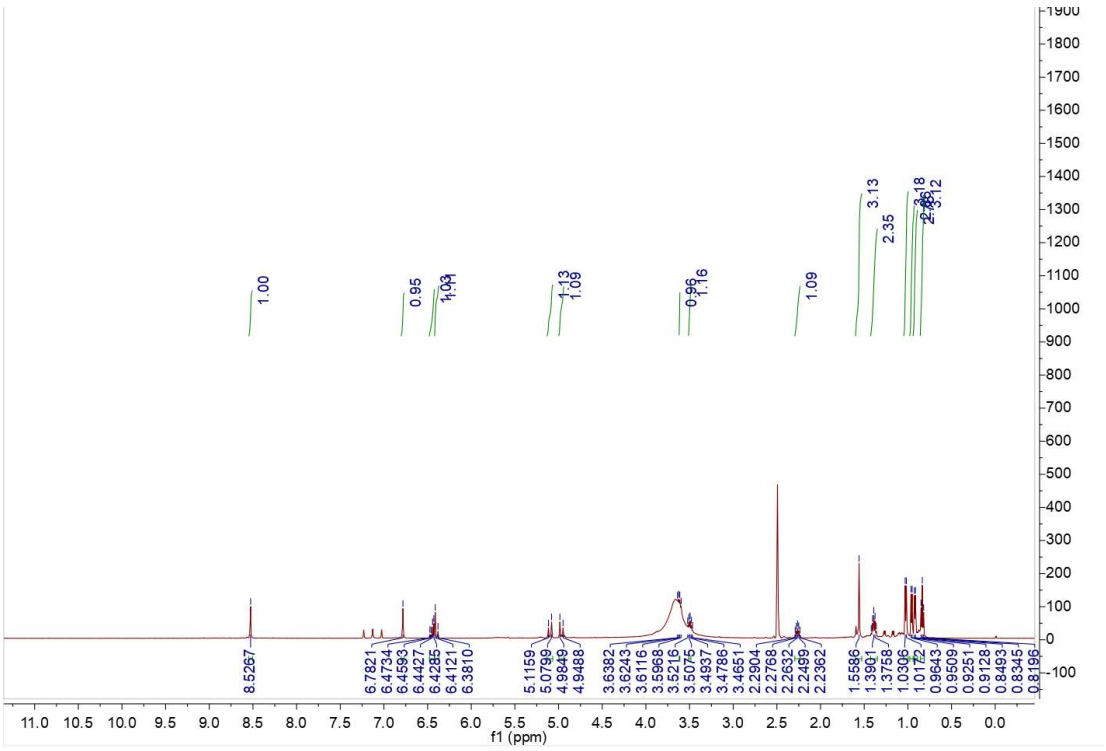

Figure S42. HRESIMS spectrum of compound **9**.

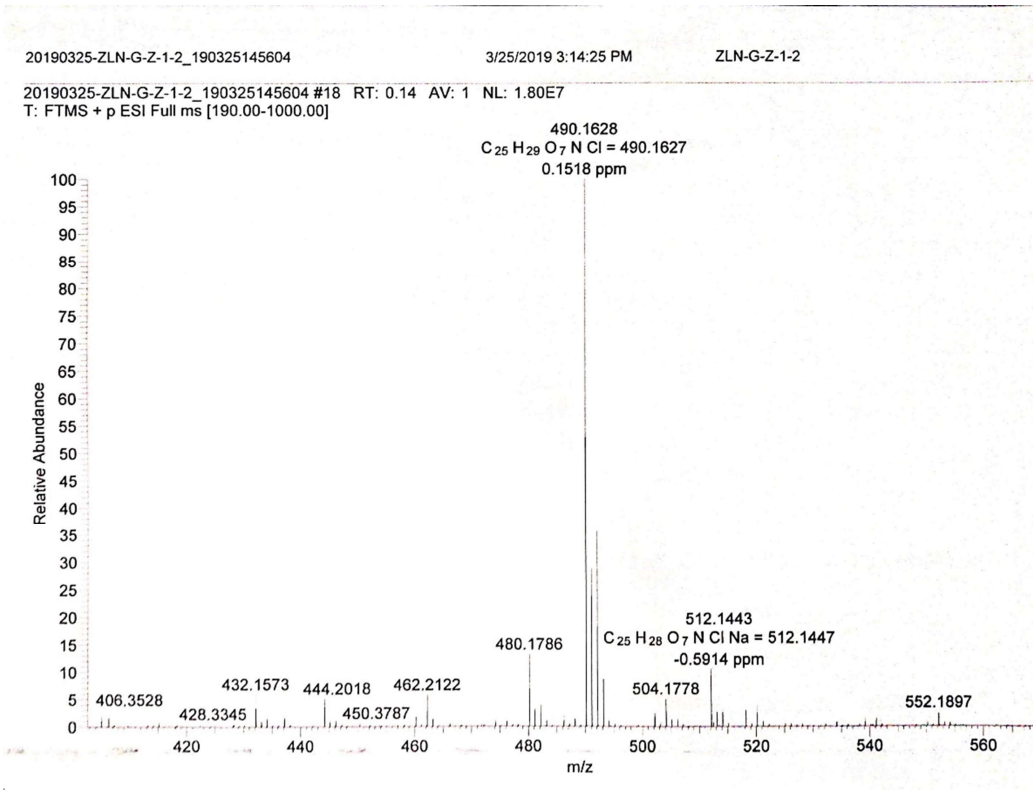

Figure S43. ^{1}H NMR (600 MHz, DMSO-d_6) spectrum of compound **10**.

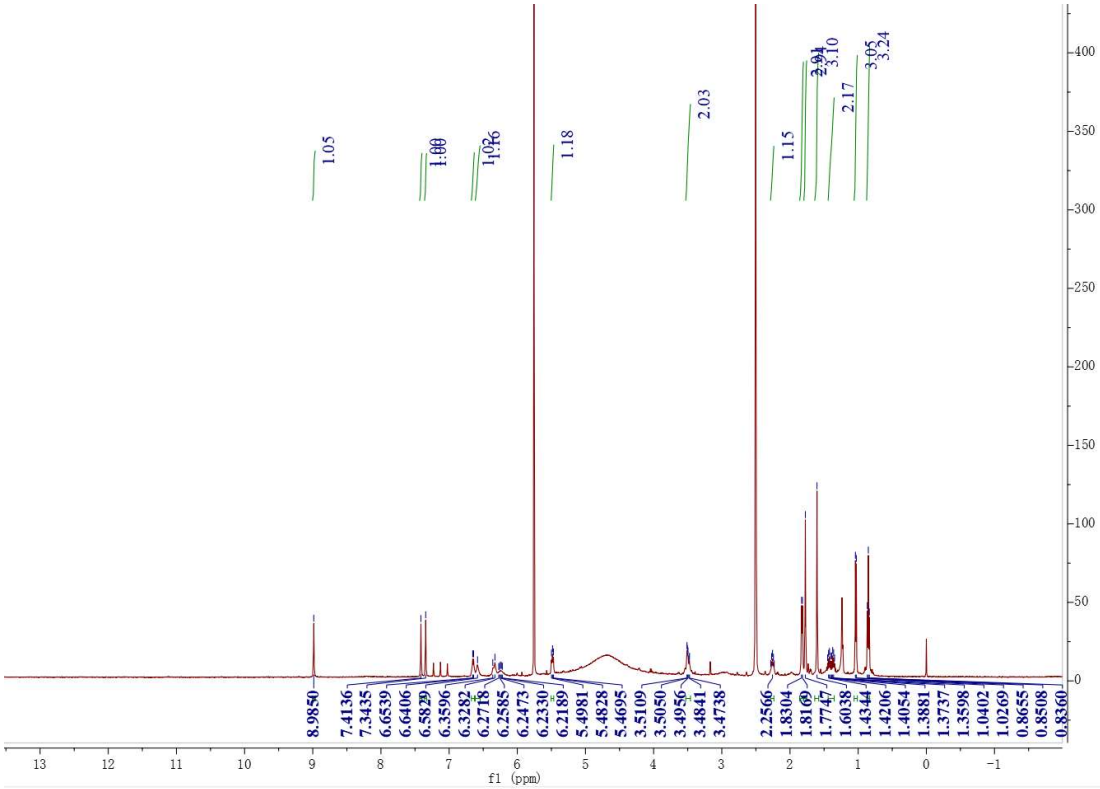

Figure S44. HRESIMS spectrum of compound **10**.