Supplementary Information

Non-steroidal FXR agonists dimeric 2-methyl-4-(1-glycerol)furan with lipid-lowering activities from marine-derived *Nocardiopsis* sp. ZSN1

Yongjun Jiang [1,*], Zhen Lei [1], Jiebin Fang [3], Yanping Wu [1], Chengpeng Sun [2,*]

[1] School of Food and Pharmacy, Zhejiang Ocean University, Zhoushan 316021, People's Republic of China;
[2] School of Chinese Materia Medica, Tianjin State Key Laboratory of Therapeutic Substance of Traditional Chinese Medicine, Tianjin University of Traditional Chinese Medicine, Tianjin 301617, People's Republic of China;
[3] Institute of Marine Biology and Pharmacology, Ocean College, Zhejiang University, Zhoushan 316021, People's Republic of China
* Correspondence: jiangyj@zjou.edu.cn, suncp146@163.com

Contents	Pages
Figures S1-S6. 1D and 2D NMR of **1**	3-5
Figure S7 HRESIMS spectrum of **1**	6
Figure S8 IR spectrum of **1**	6
Figure S9 UV spectrum of **1**	6
Figures S10-S15. 1D and 2D NMR of **2**	7-9
Figure S16 HRESIMS spectrum of **2**	10
Figure S17 IR spectrum of **2**	10
Figure S18 UV spectrum of **2**	11
Figures S19-S24. 1D and 2D NMR of **3**	11-13
Figure S25 HRESIMS spectrum of **3**	14
Figure S26 UV spectrum of **3**	14
Figures S27-S32. 1D and 2D NMR of **4**	15-17
Figure S33 HRESIMS spectrum of **4**	18
Figure S34 UV spectrum of **4**	18
Figures S35-S40 1D and 2D NMR of **5**	19-21
Figure S41 HRESIMS spectrum of **5**	22

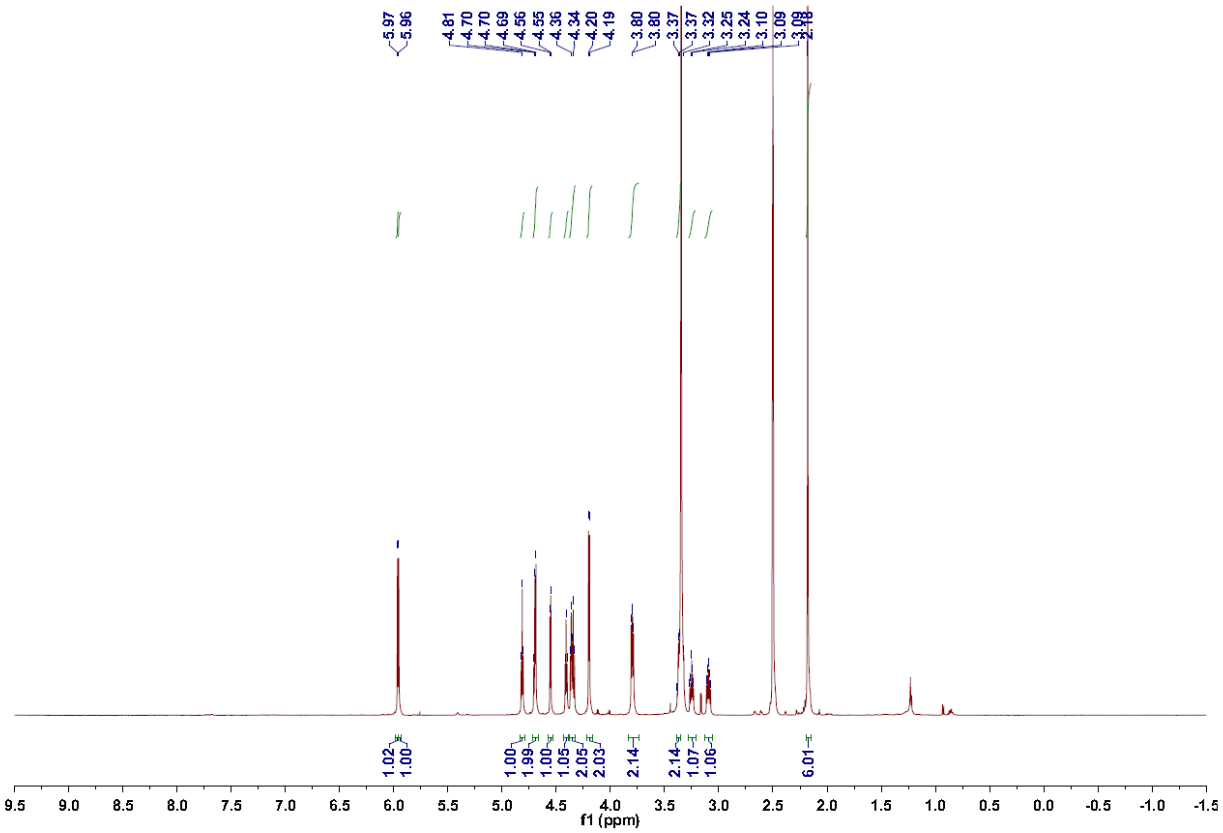

Figure S1. ^{1}H NMR spectrum of **1** in DMSO-d_6 (600 MHz)

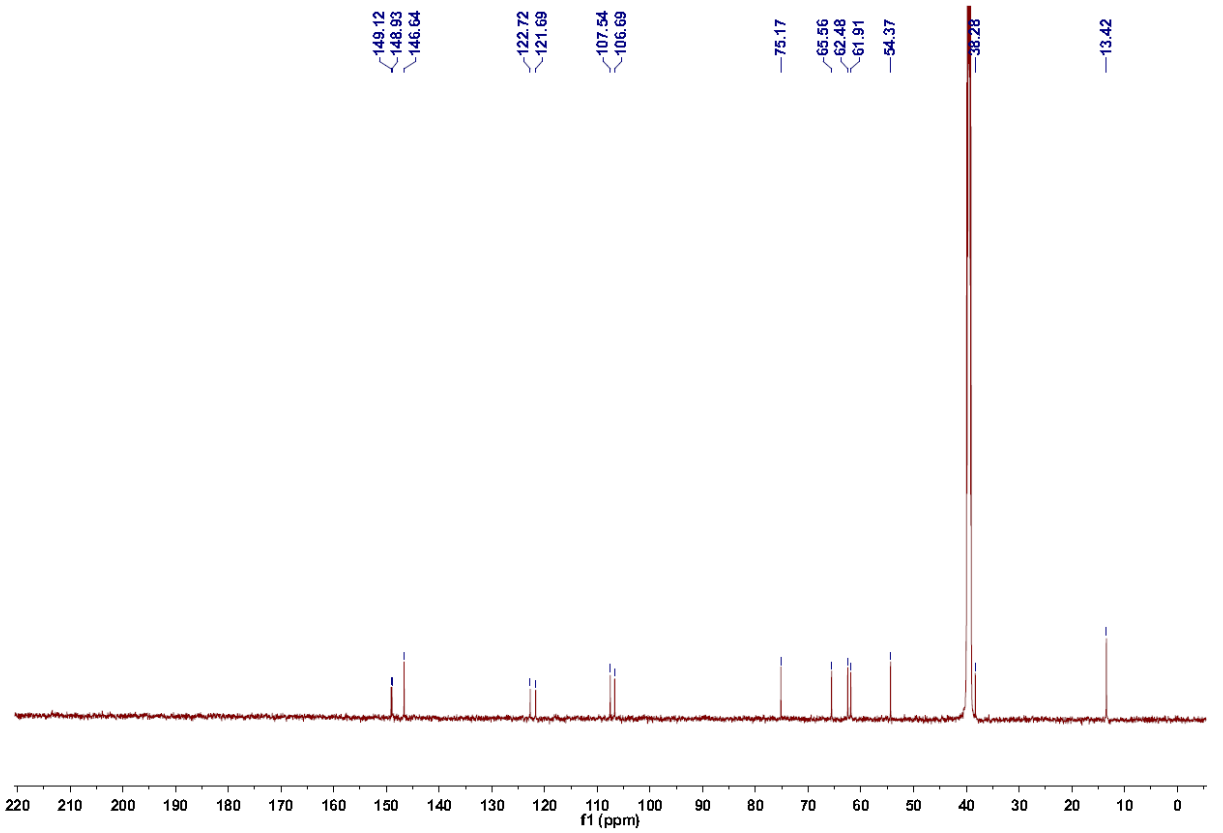

Figure S2. ^{13}C NMR spectrum of **1** in DMSO-d_6 (125 MHz)

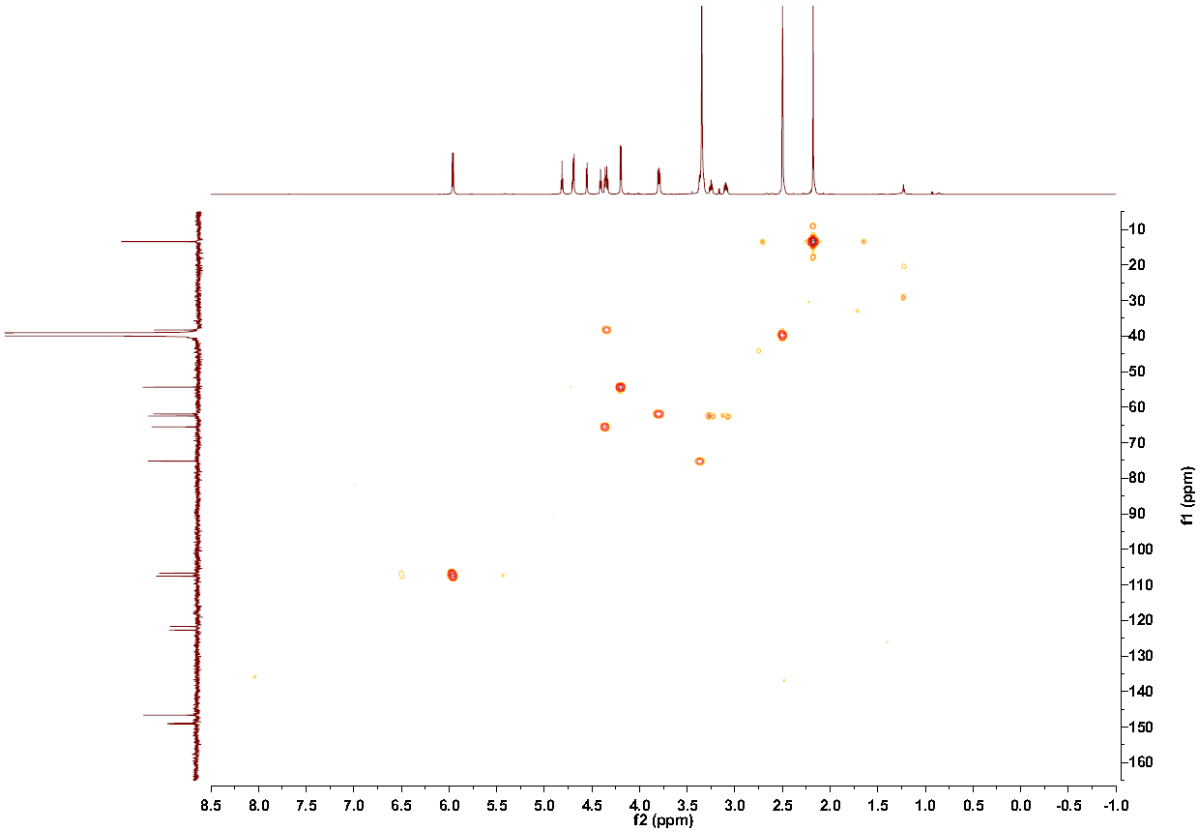

Figure S3. HSQC spectrum of **1** recorded in DMSO-d_6

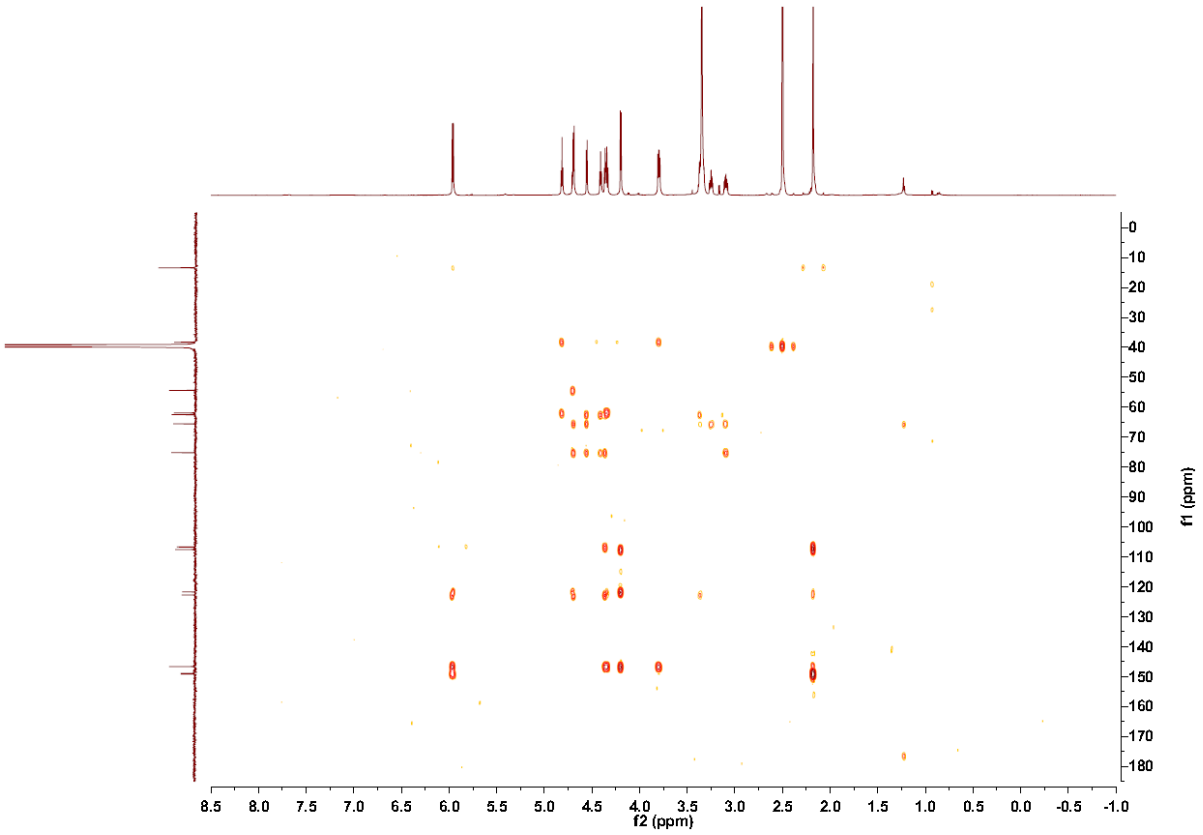

Figure S4. HMBC spectrum of **1** recorded in DMSO-d_6

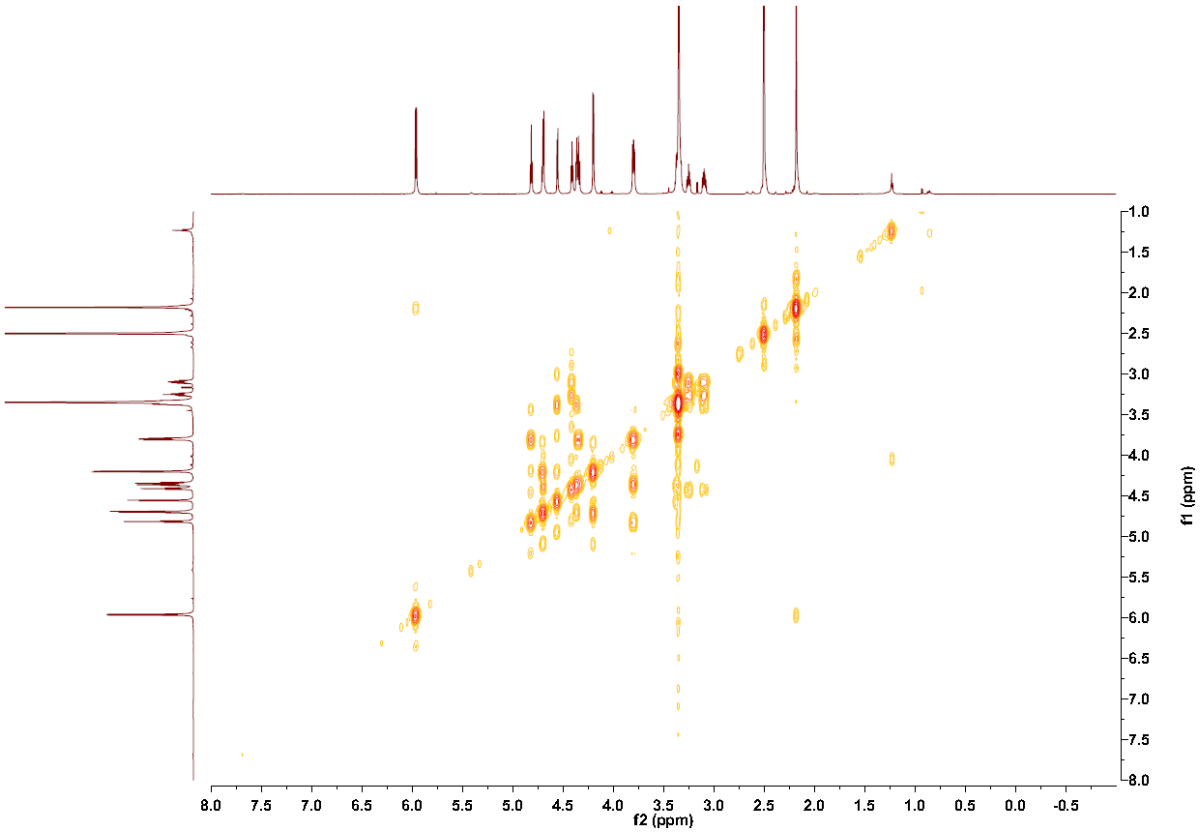

Figure S5. ^{1}H-^{1}H COSY spectrum of **1** recorded in DMSO-d_6

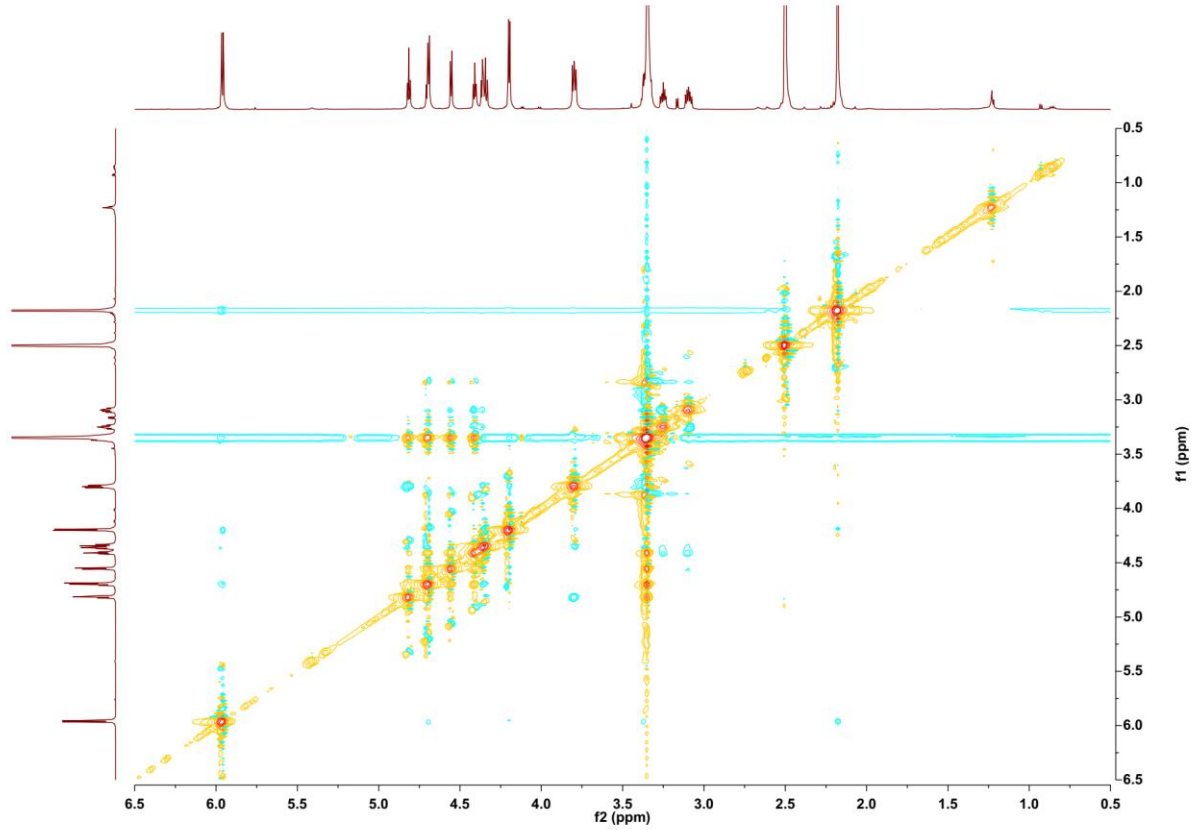

Figure S6. NOESY spectrum of **1** recorded in DMSO-d_6

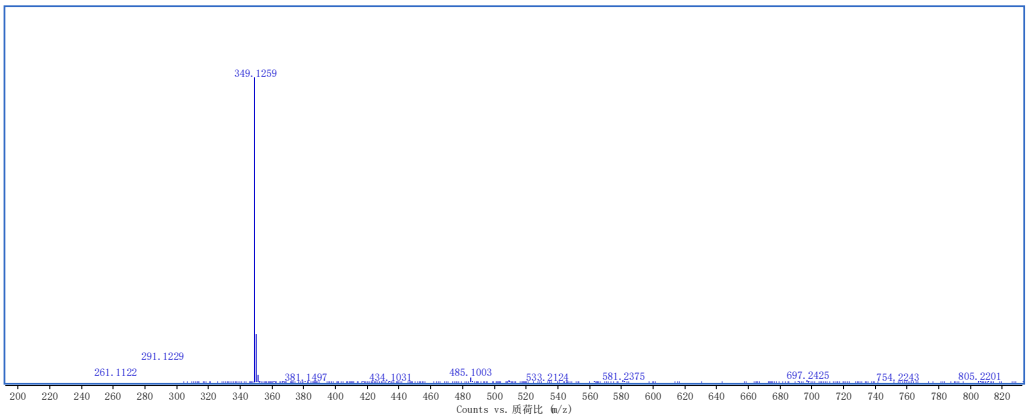

Figure S7. HRESIMS spectrum of **1**

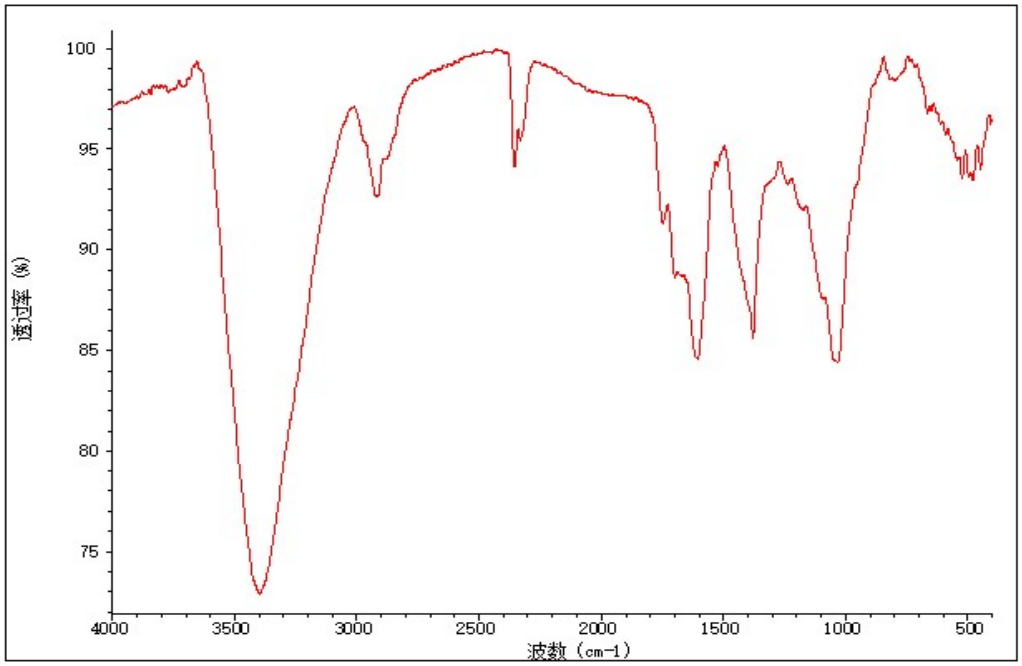

Figure S8. IR spectrum of **1**

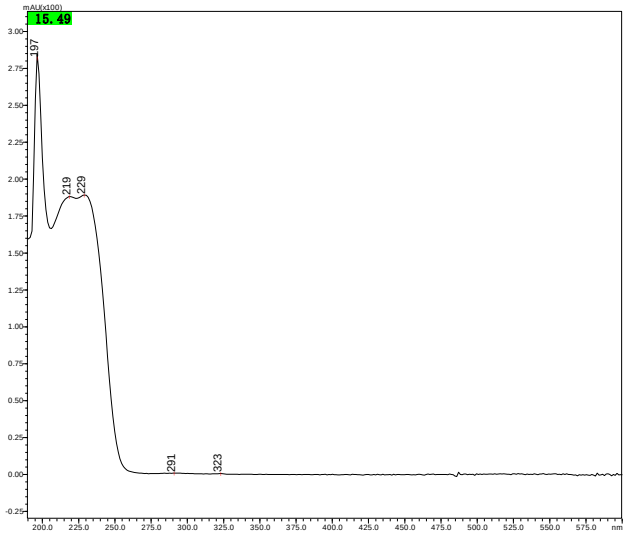

Figure S9. UV spectrum of **1**

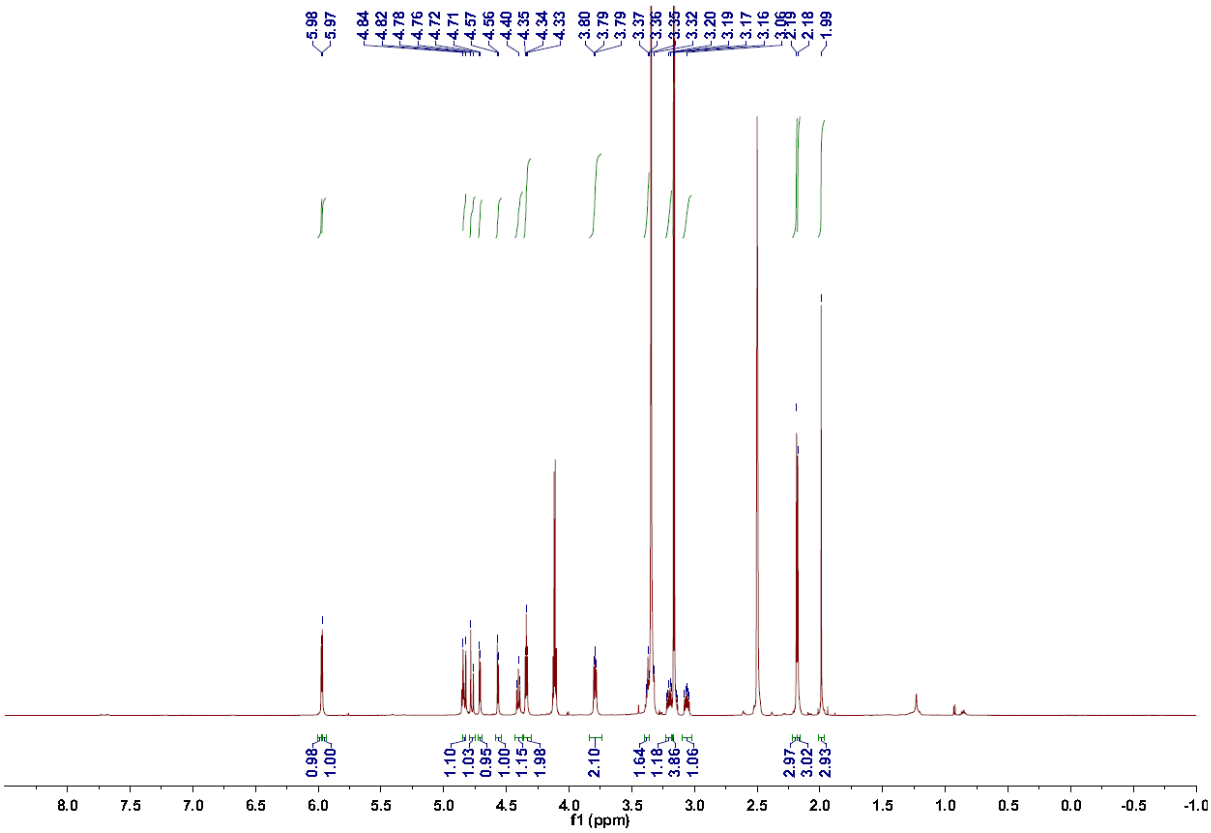

Figure S10. ^{1}H NMR spectrum of **2** in DMSO-d_6 (600 MHz)

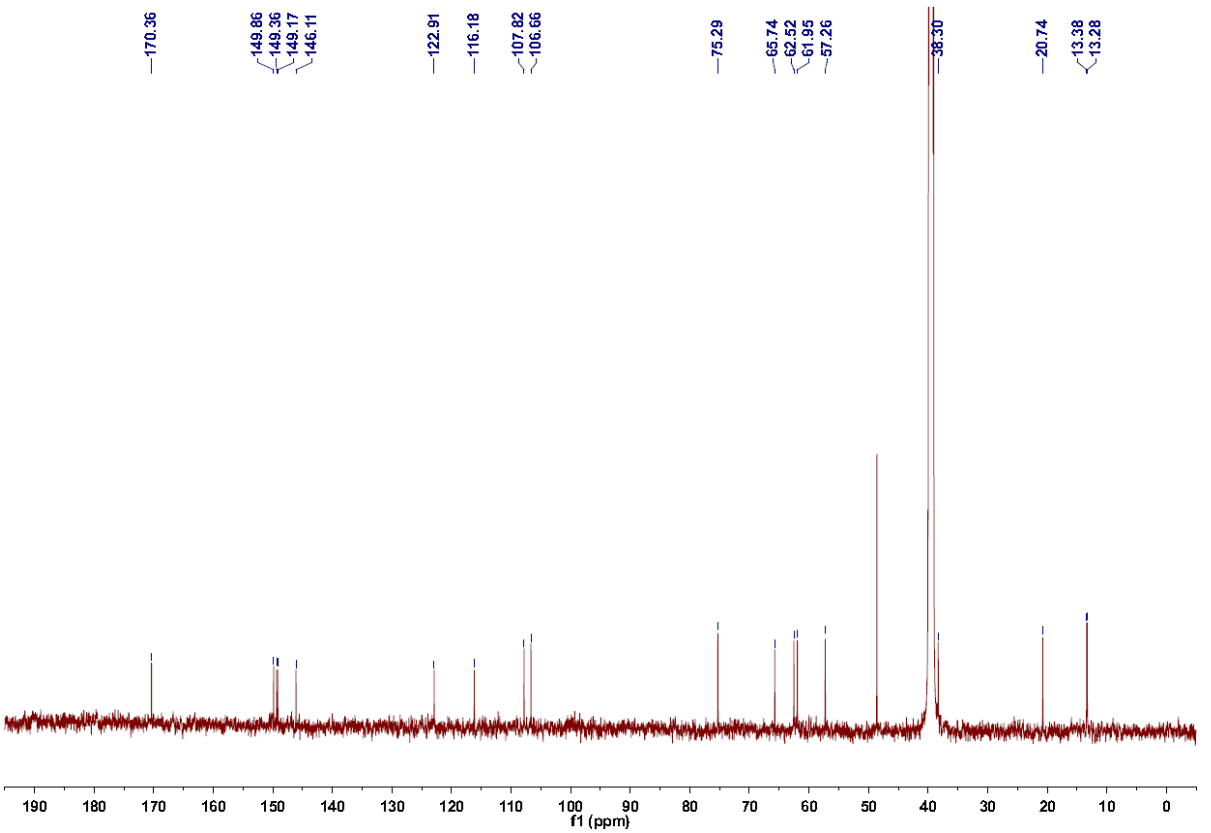

Figure S11. ^{13}C NMR spectrum of **2** in DMSO-d_6 (150 MHz)

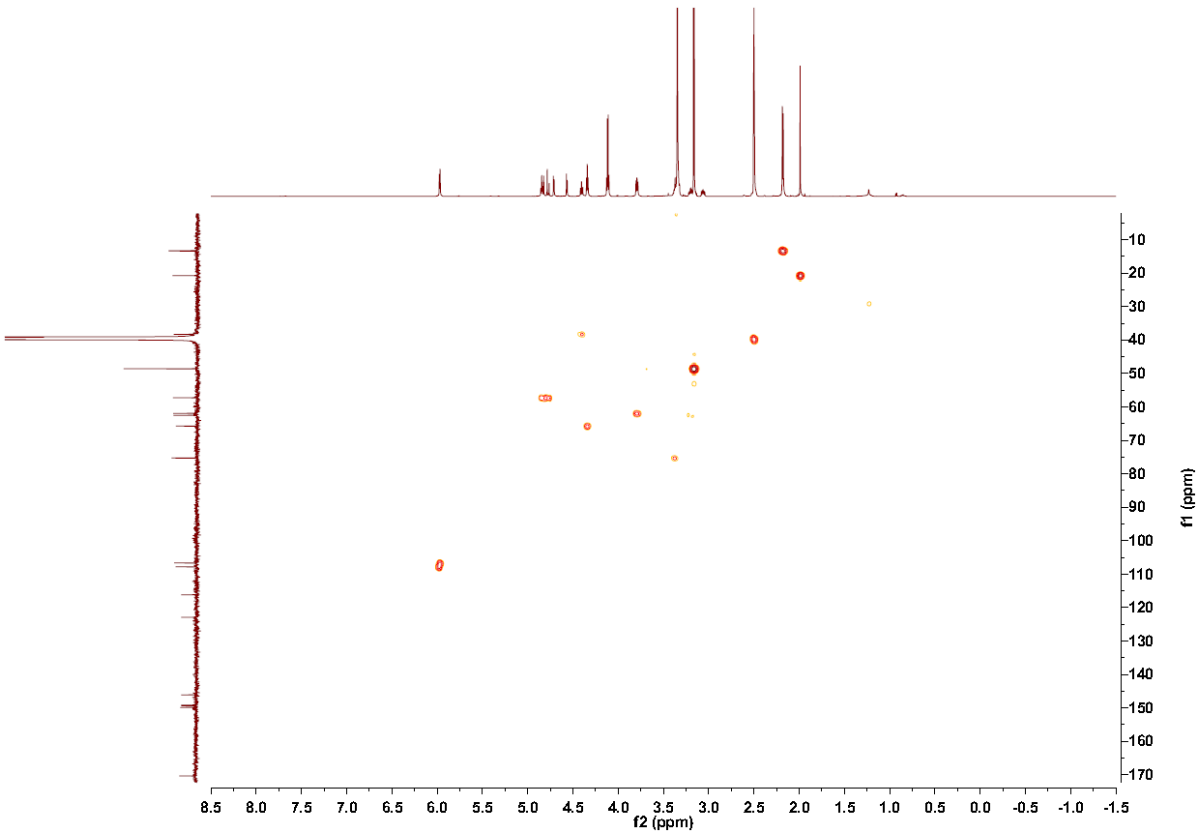

Figure S12. HSQC spectrum of **2** recorded in DMSO-d_6 (600 MHz)

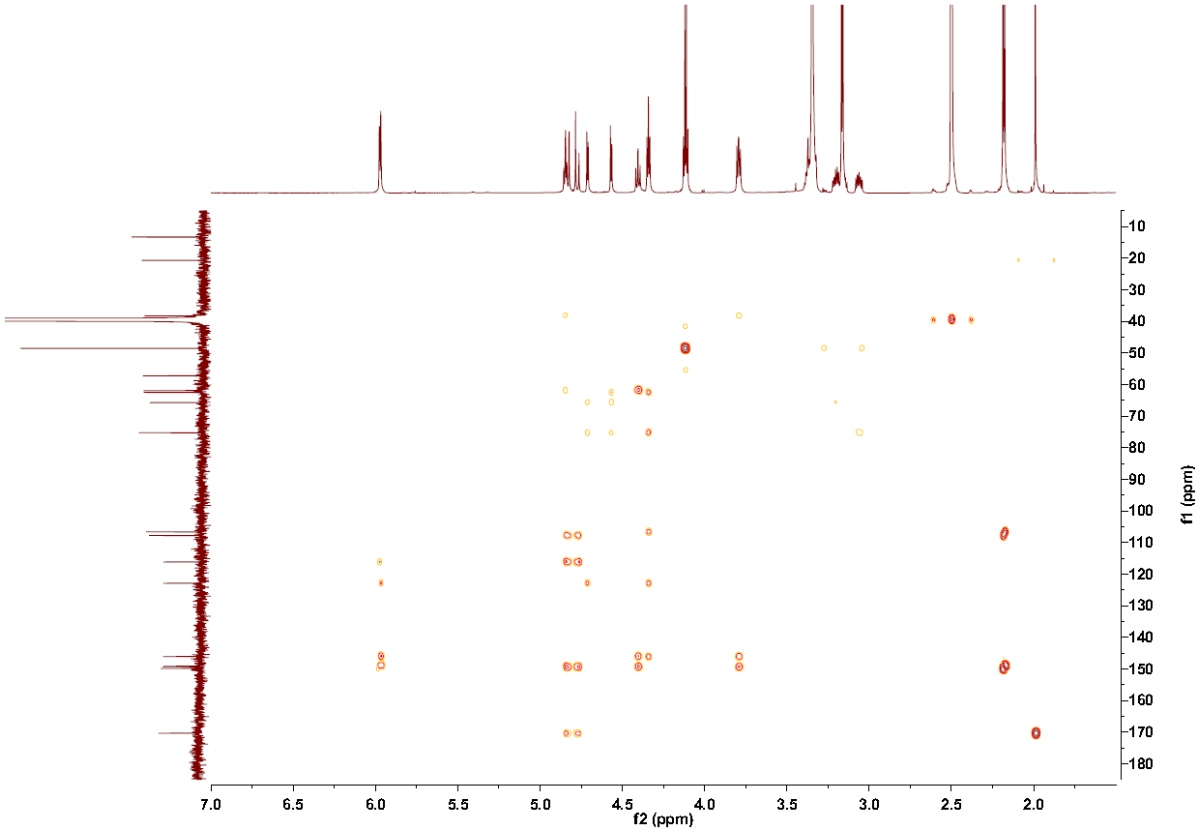

Figure S13. HMBC spectrum of **2** recorded in DMSO-d_6 (600 MHz)

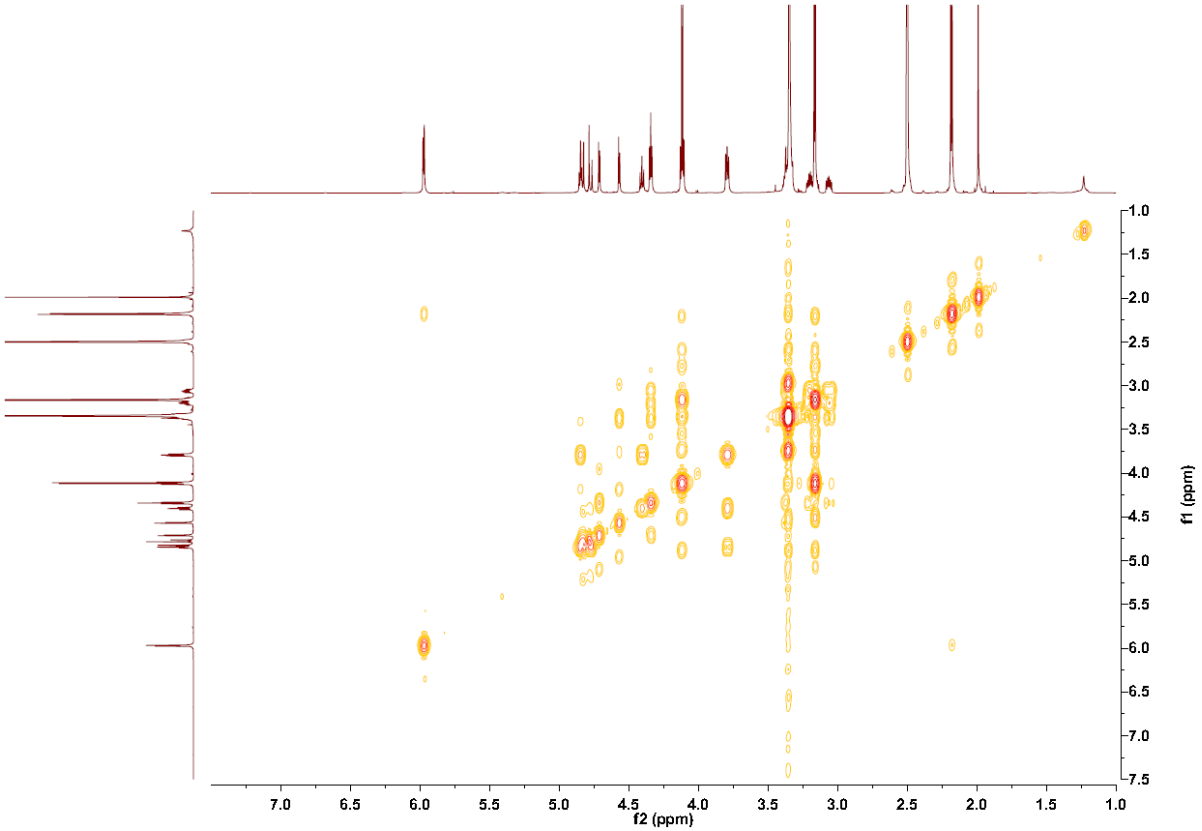

Figure S14. ^{1}H-^{1}H COSY spectrum of **2** recorded in DMSO-d_6 (600 MHz)

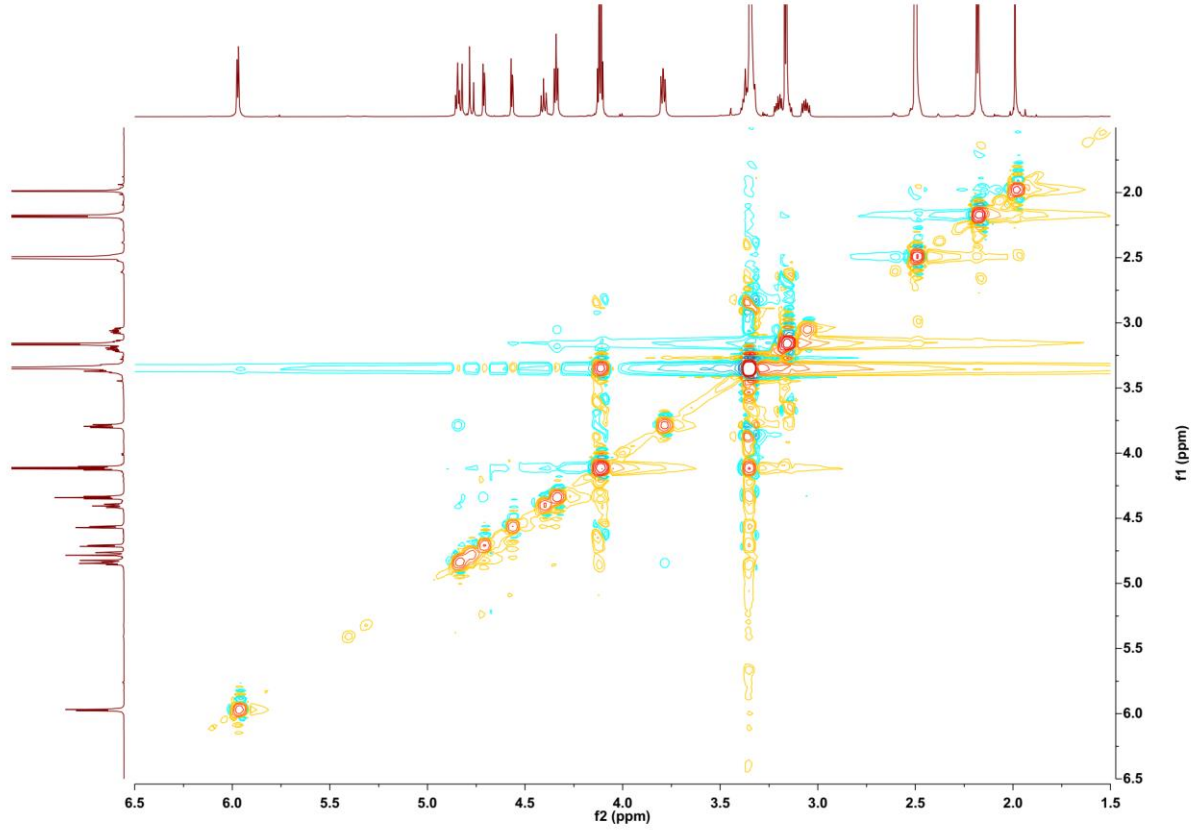

Figure S15. NOESY spectrum of **2** recorded in DMSO-d_6 (600 MHz)

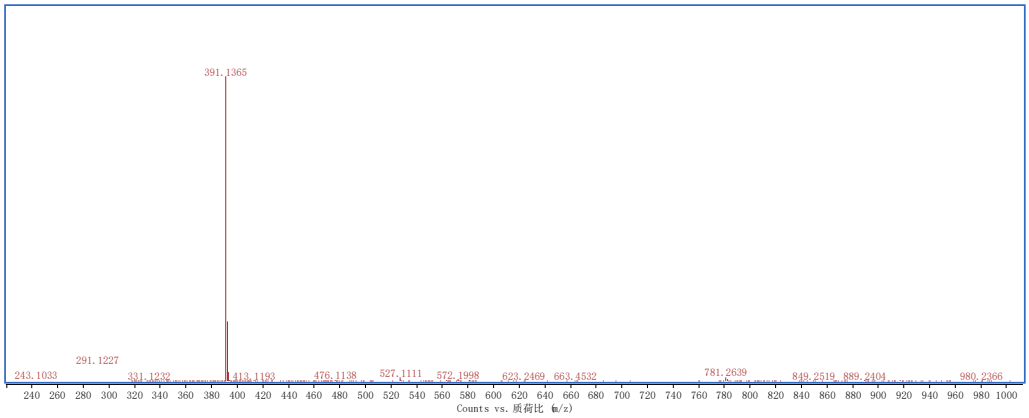

Figure S16. HRESIMS spectrum of **2**

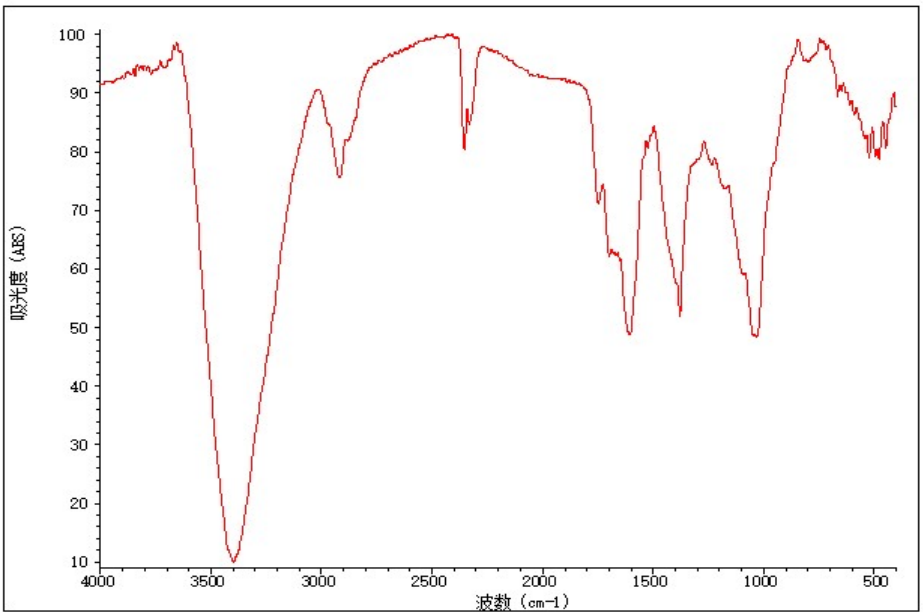

Figure S17. IR spectrum of **2**

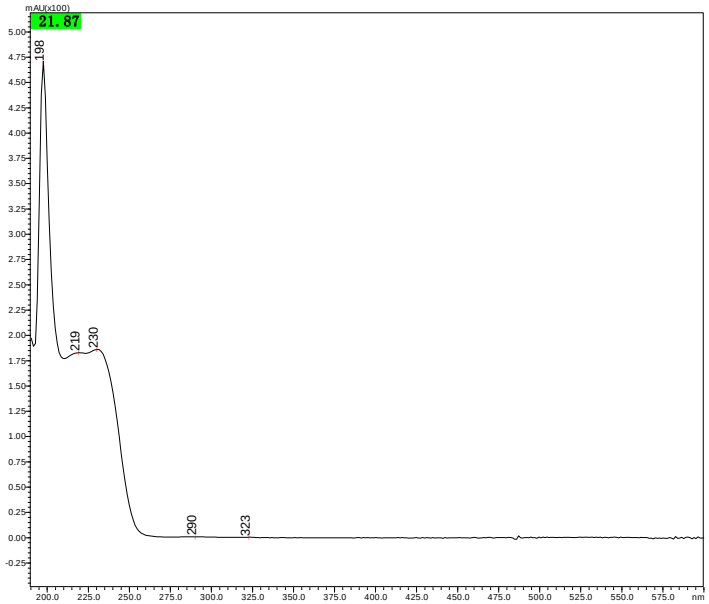

Figure S18. UV spectrum of **2**

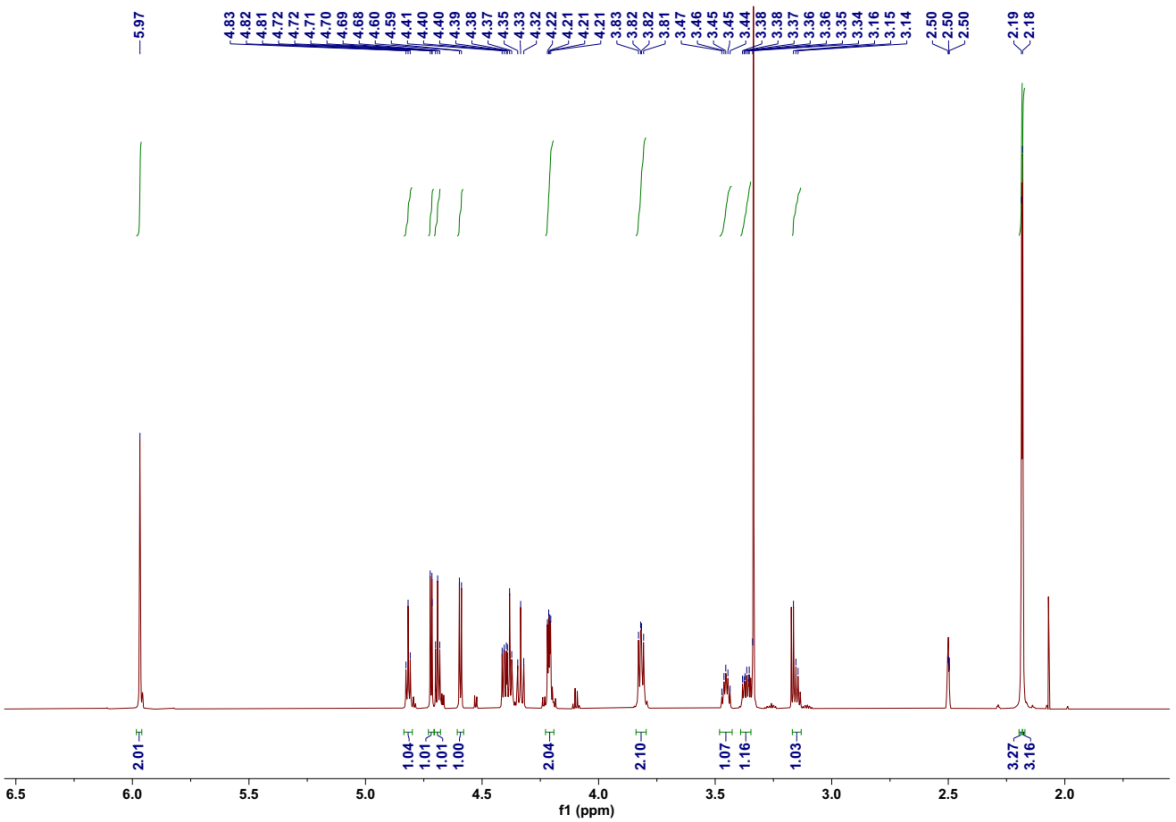

Figure S19. ^{1}H NMR spectrum of **3** in DMSO-d_6 (600 MHz)

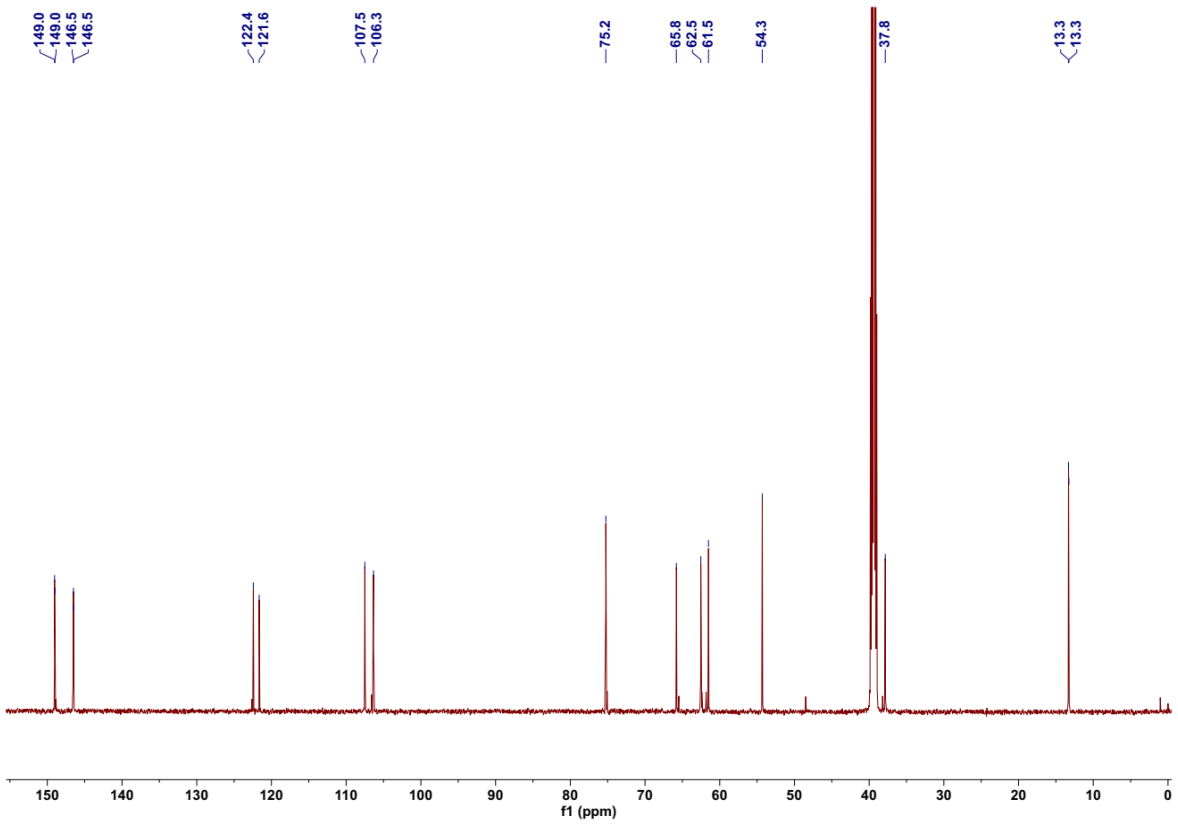

Figure S20. ^{13}C NMR spectrum of **3** in DMSO-d_6 (125 MHz)

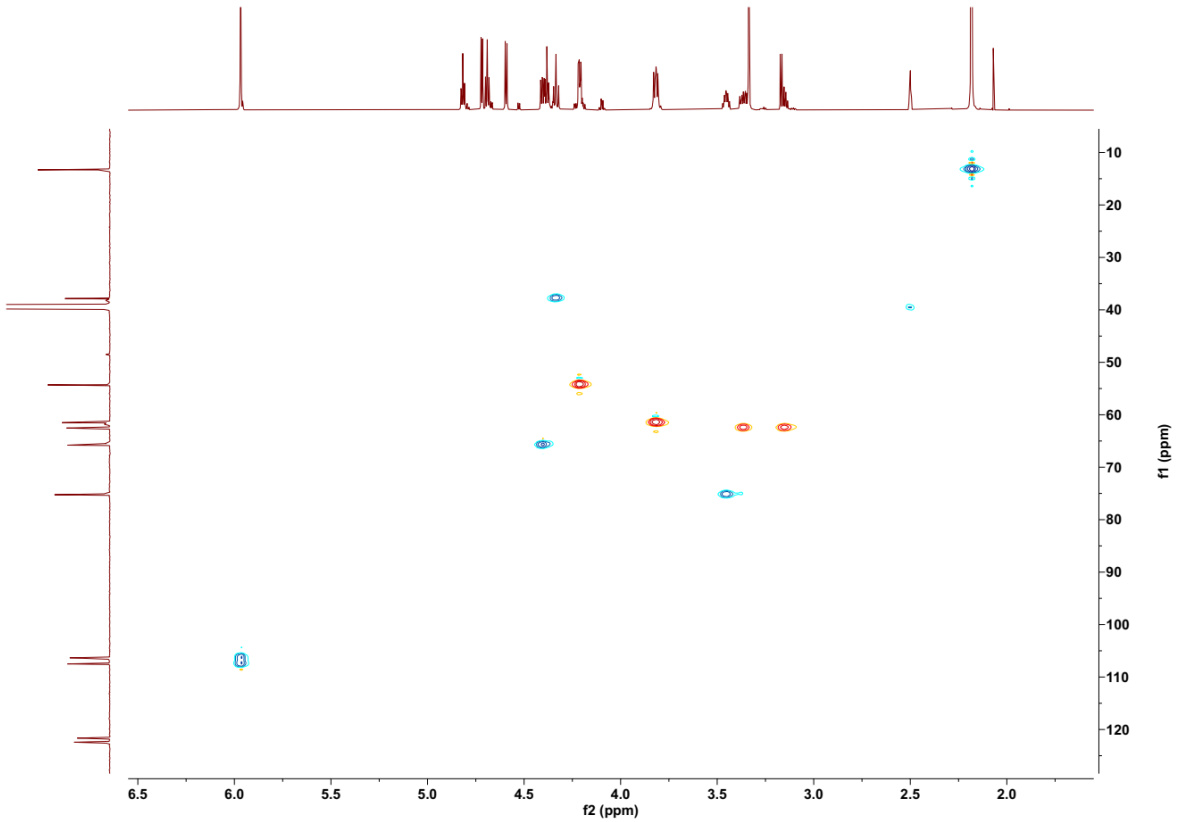

Figure S21. HSQC spectrum of **3** in DMSO-d_6

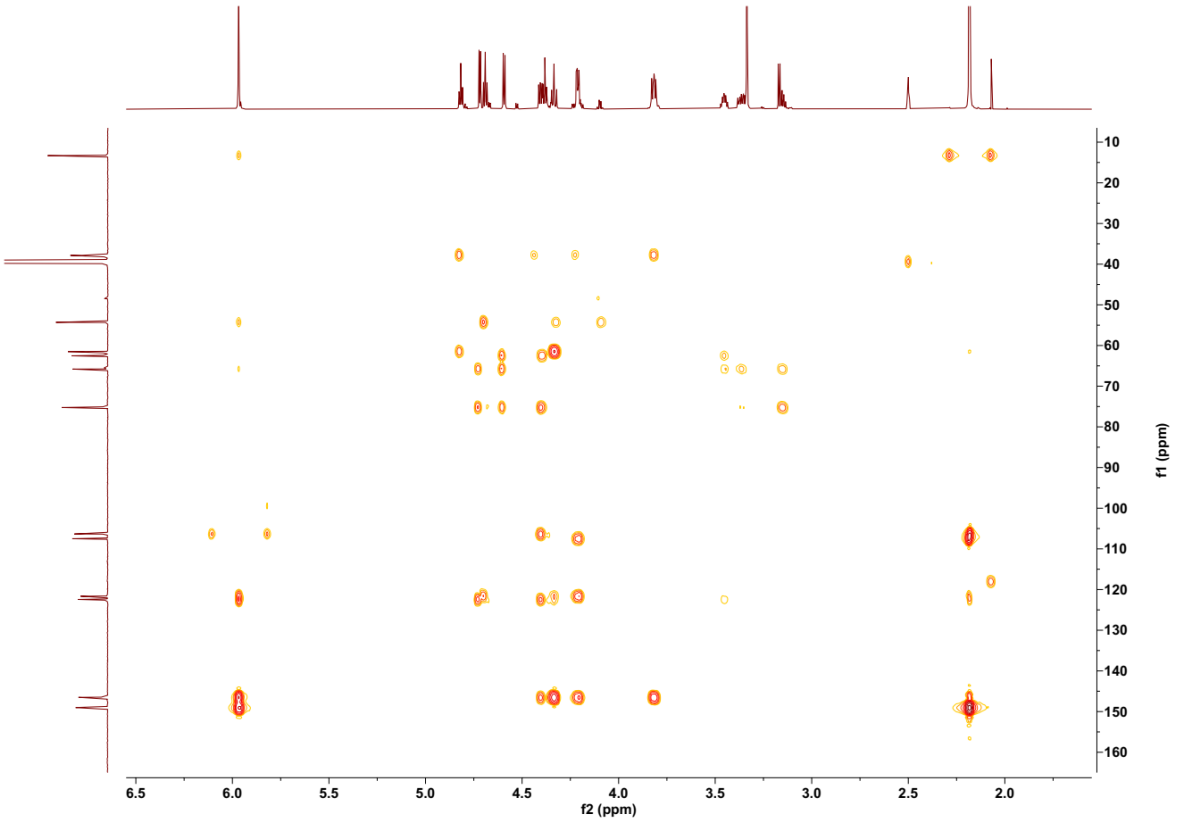

Figure S22. HMBC spectrum of **3** in DMSO-d_6 (600 MHz)

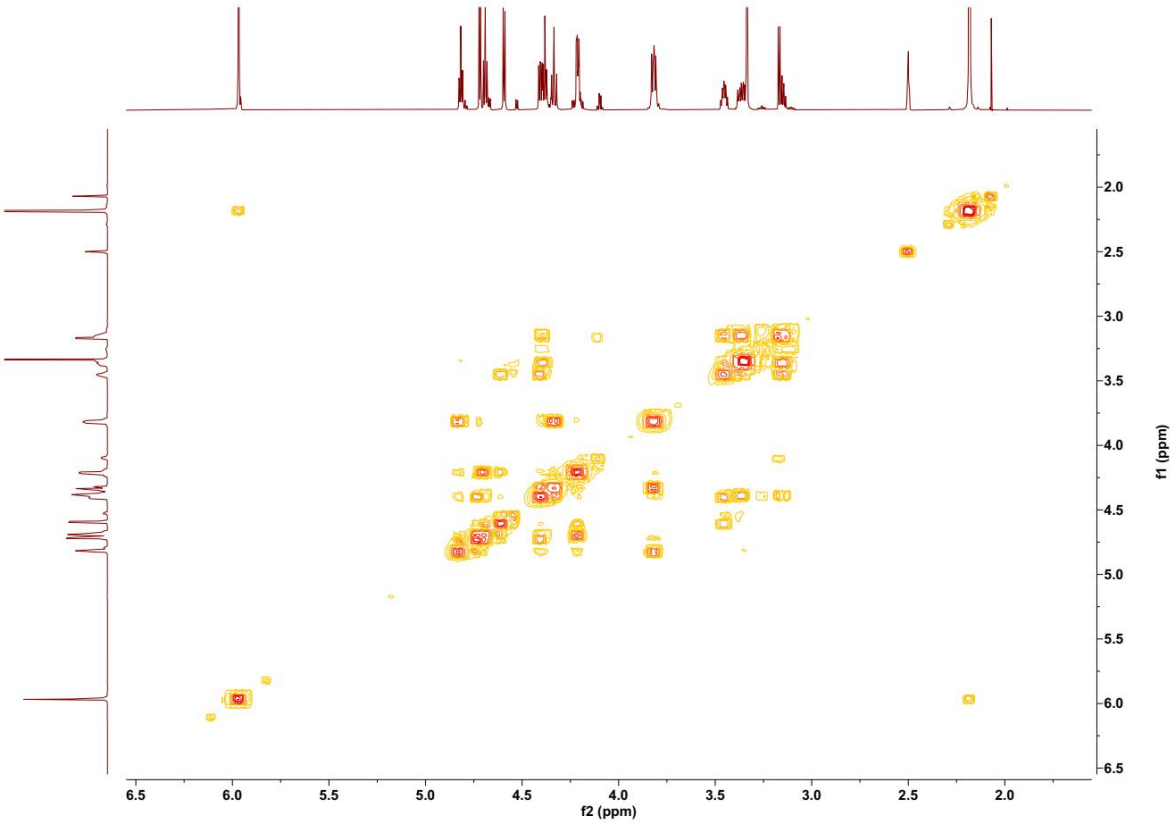

Figure S23. ^{1}H-^{1}H COSY spectrum of **3** in DMSO-d_6 (600 MHz)

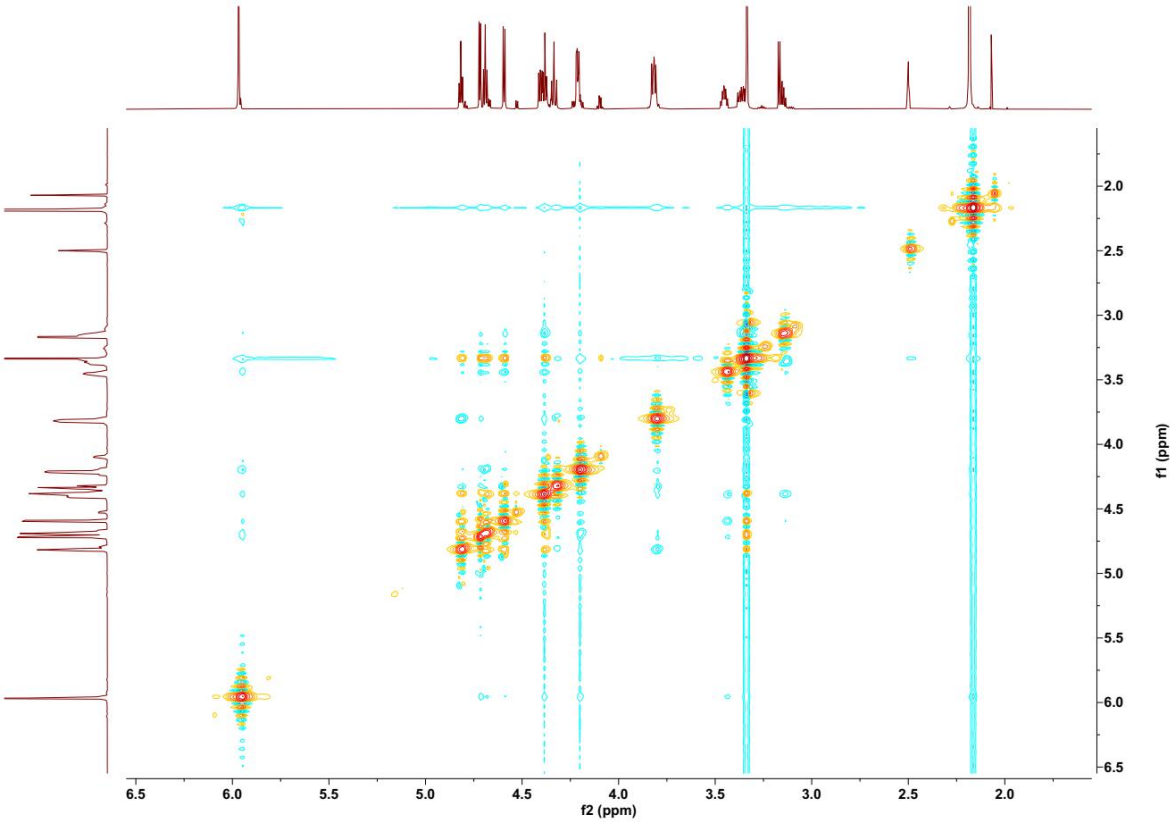

Figure S24. NOESY spectrum of **3** in DMSO-d_6 (600 MHz)

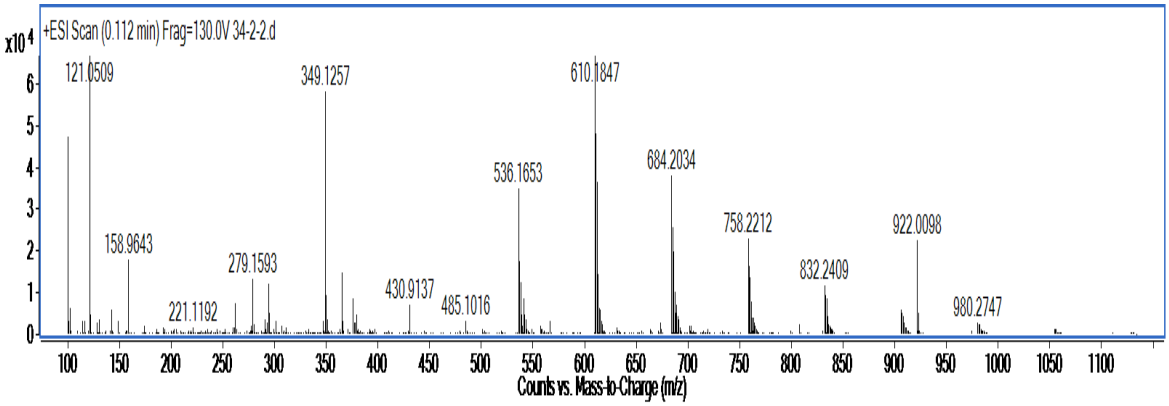

Figure S25. HRESIMS spectrum of **3**

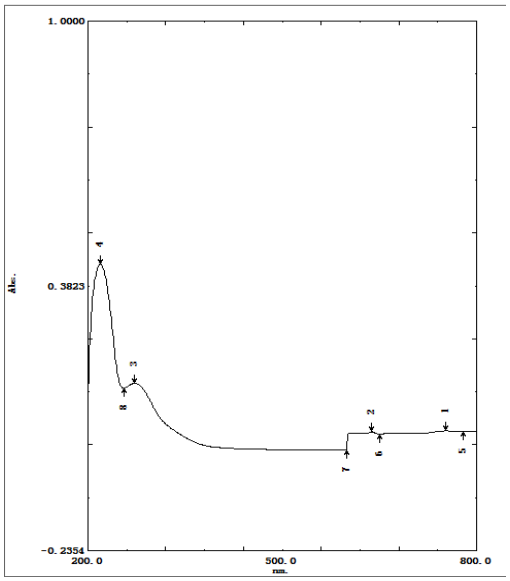

Figure S26. UV spectrum of **3**

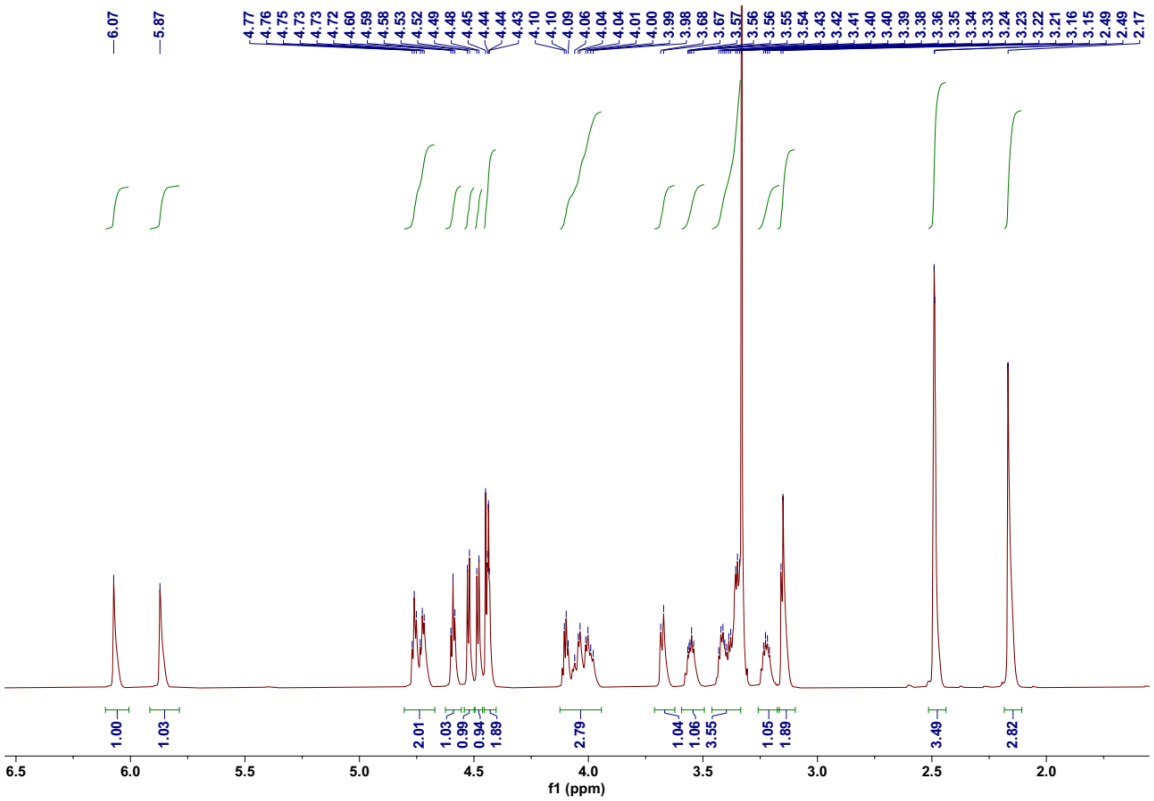

Figure S27. ^{1}H NMR spectrum of **4** in DMSO-d_6 (600 MHz)

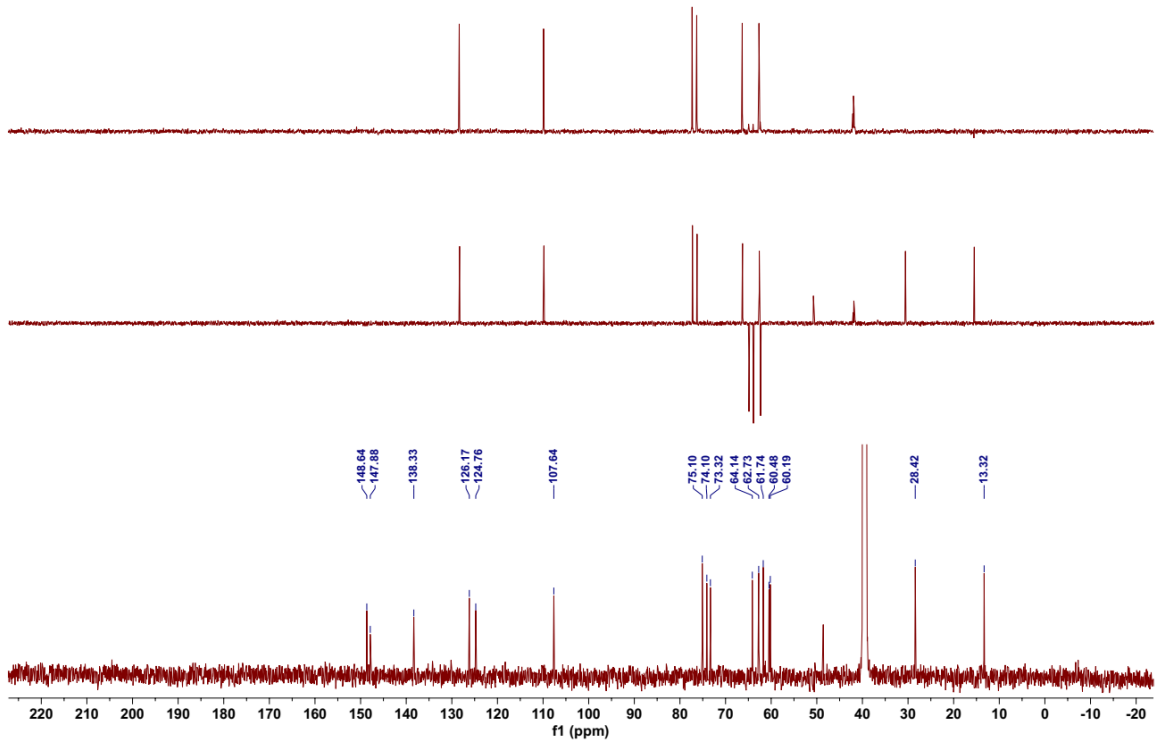

Figure S28. ^{13}C and DEPT NMR spectra of **4** in DMSO-d_6 (125 MHz)

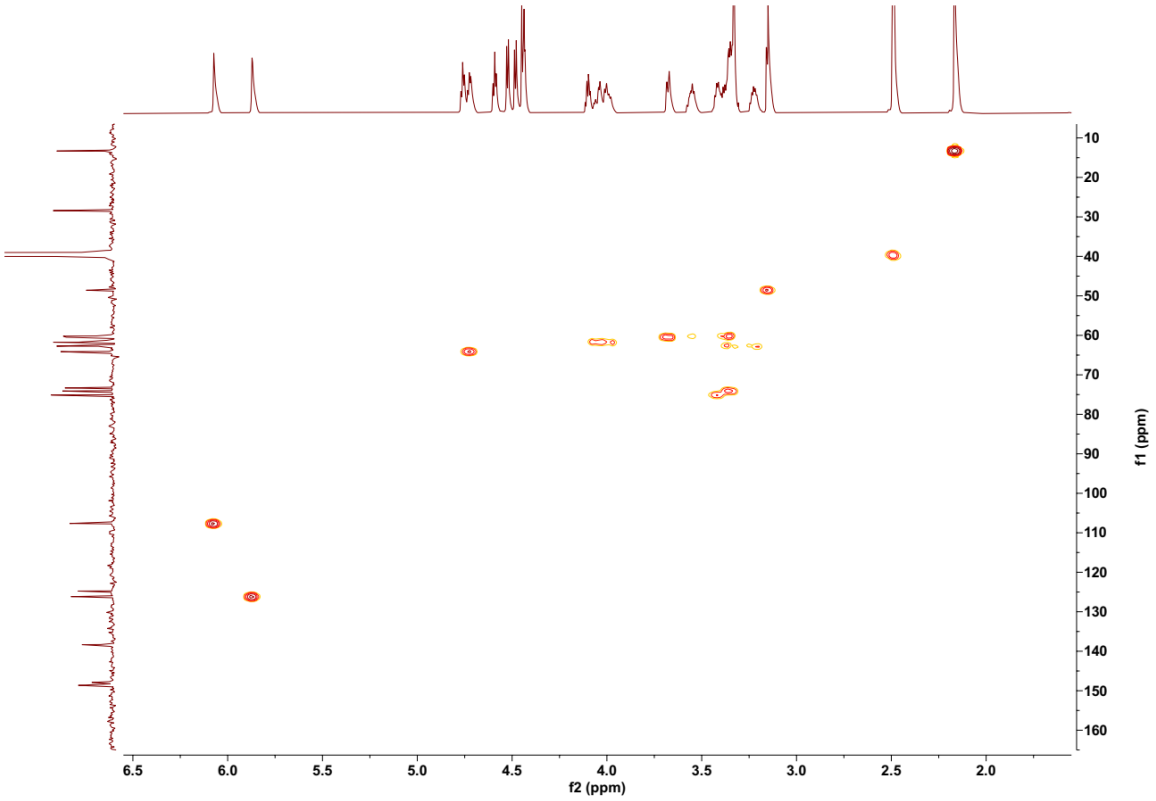

Figure S29. HSQC spectrum of **4** in DMSO-d_6

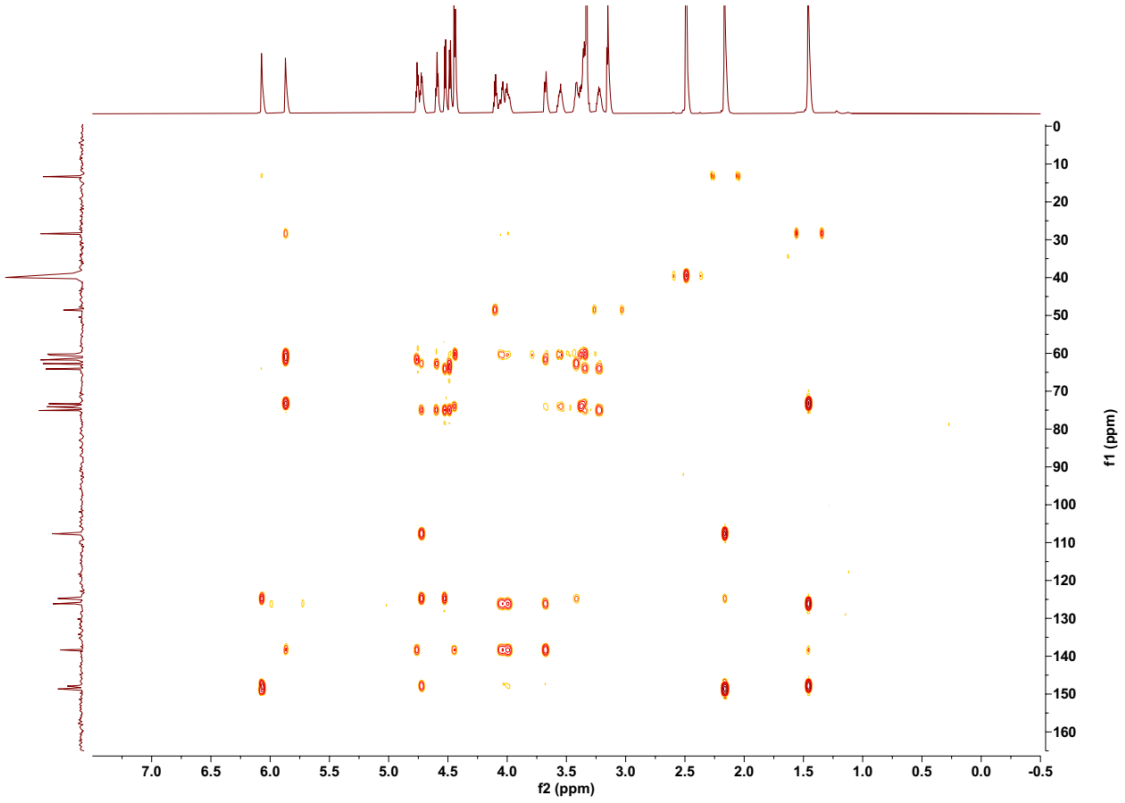

Figure S30. HMBC spectrum of **4** in DMSO-d_6

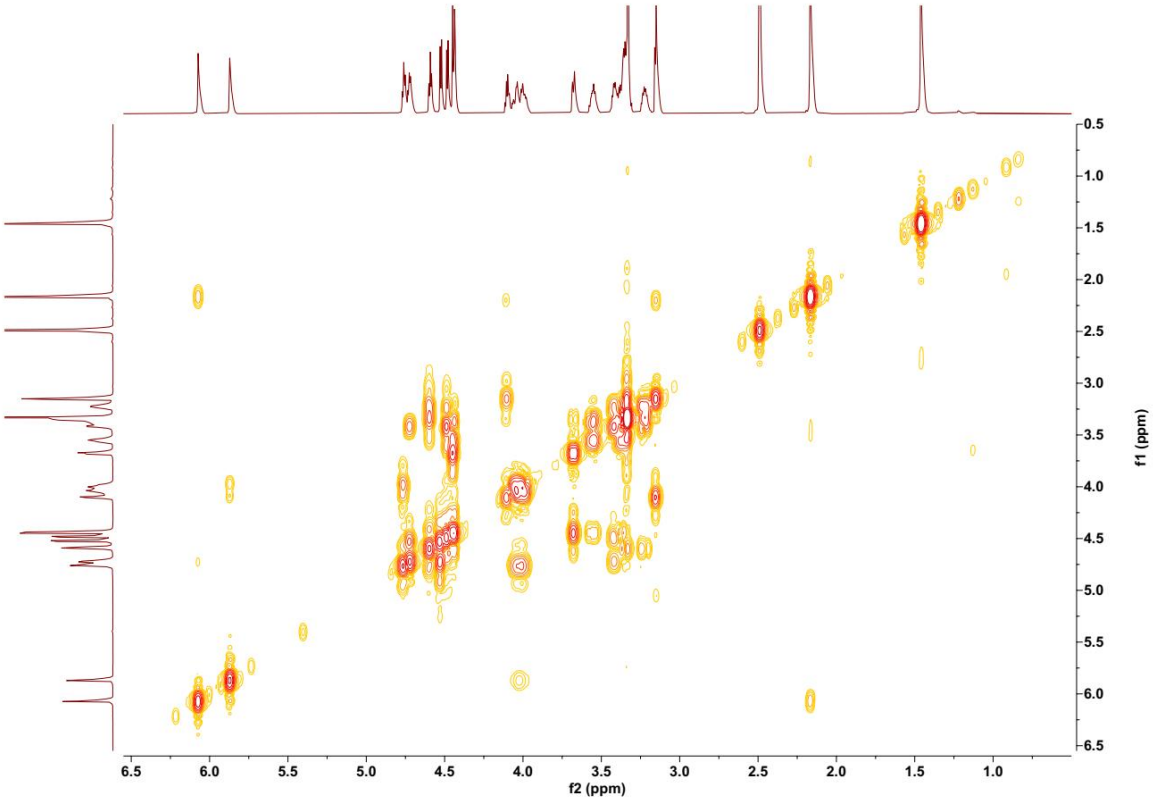

Figure S31. ^{1}H-^{1}H COSY spectrum of **4** in DMSO-d_6

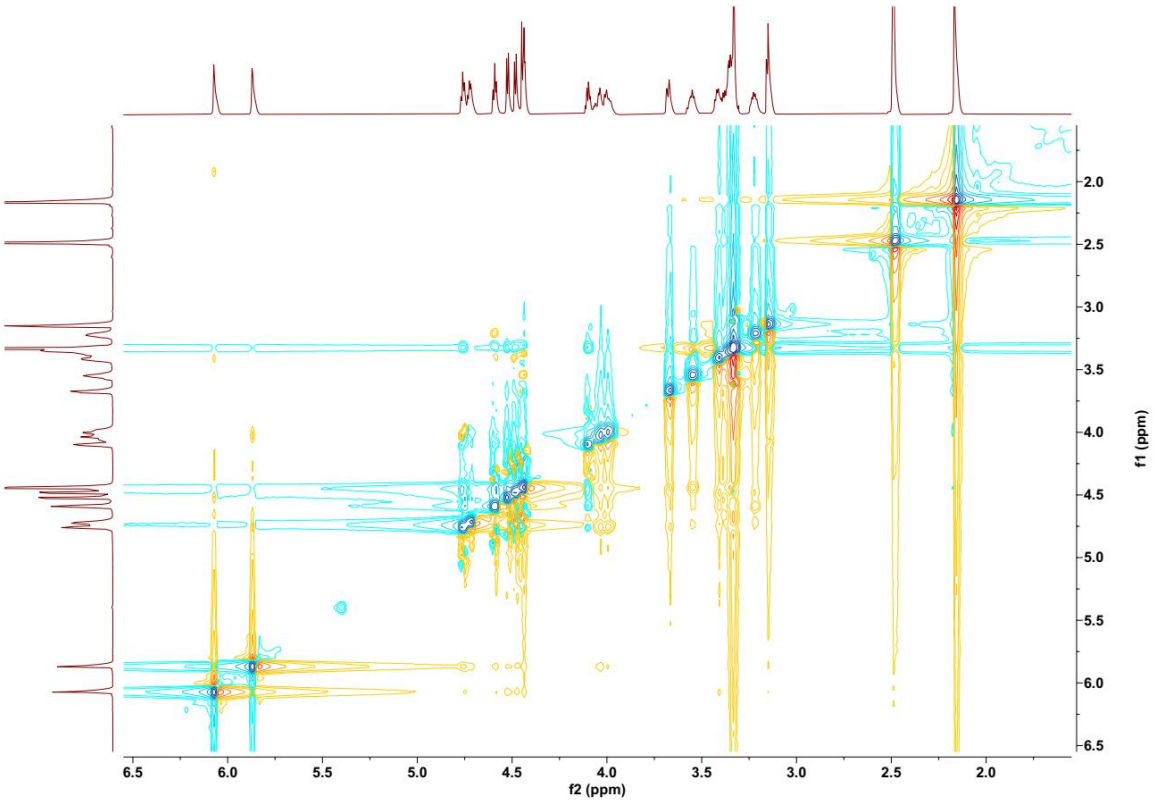

Figure S32. NOESY spectrum of **4** in DMSO-*d*$_6$

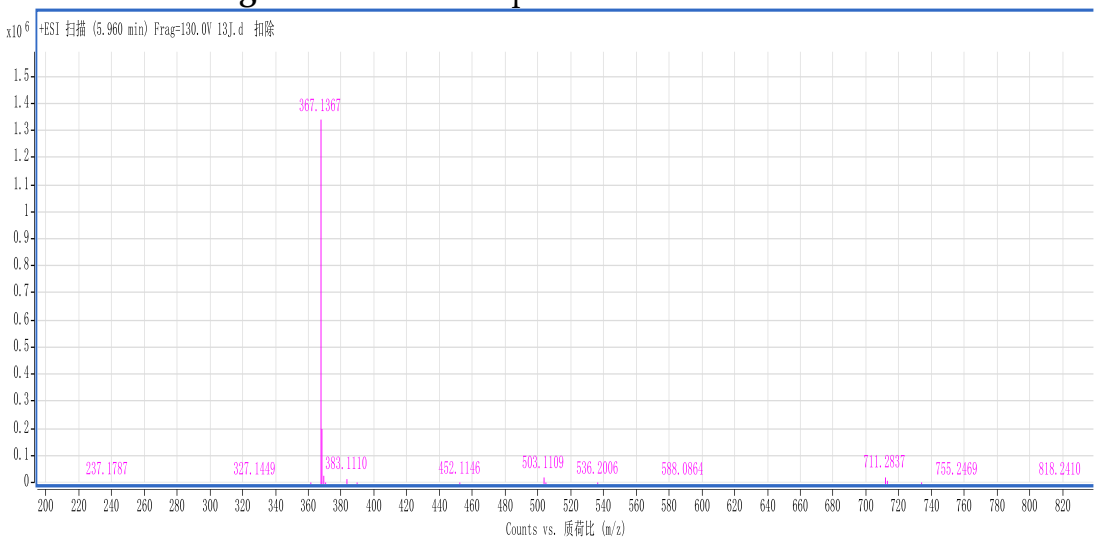

Figure S33. HRESIMS spectrum of **4**

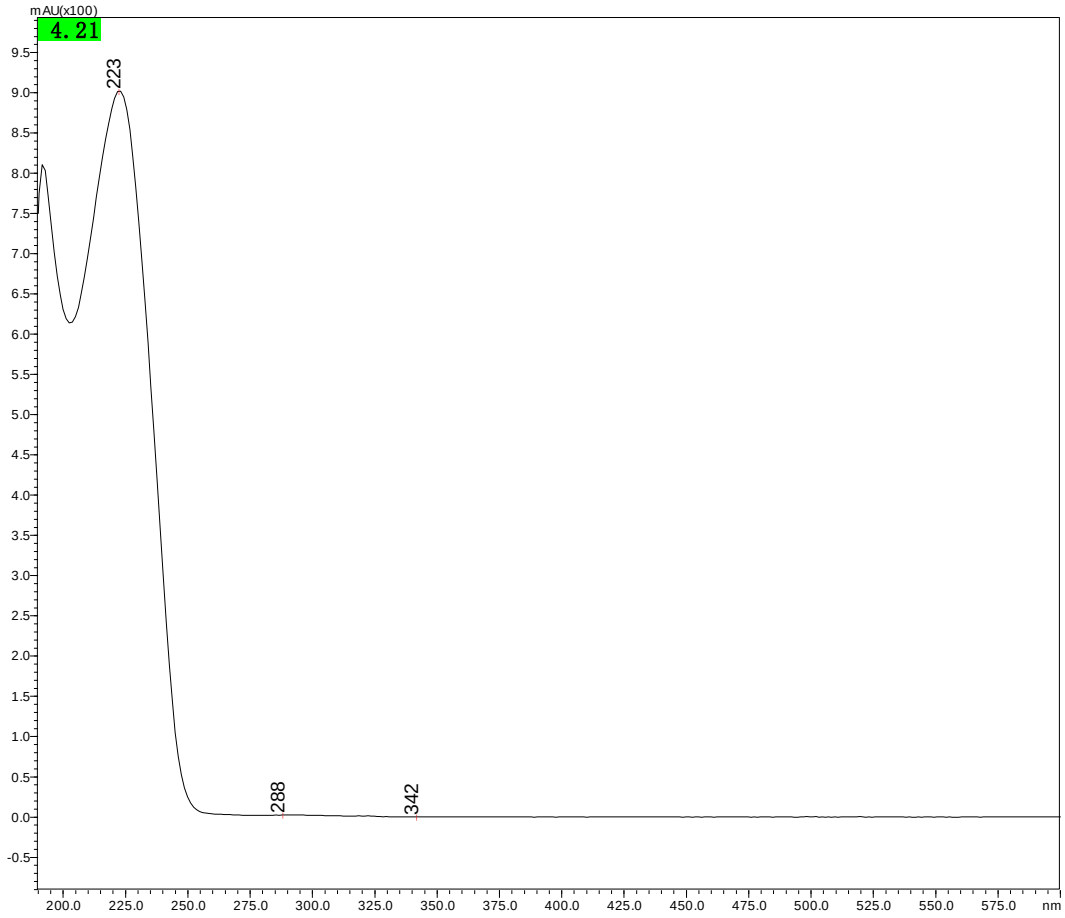

Figure S34. UV spectrum of **4**

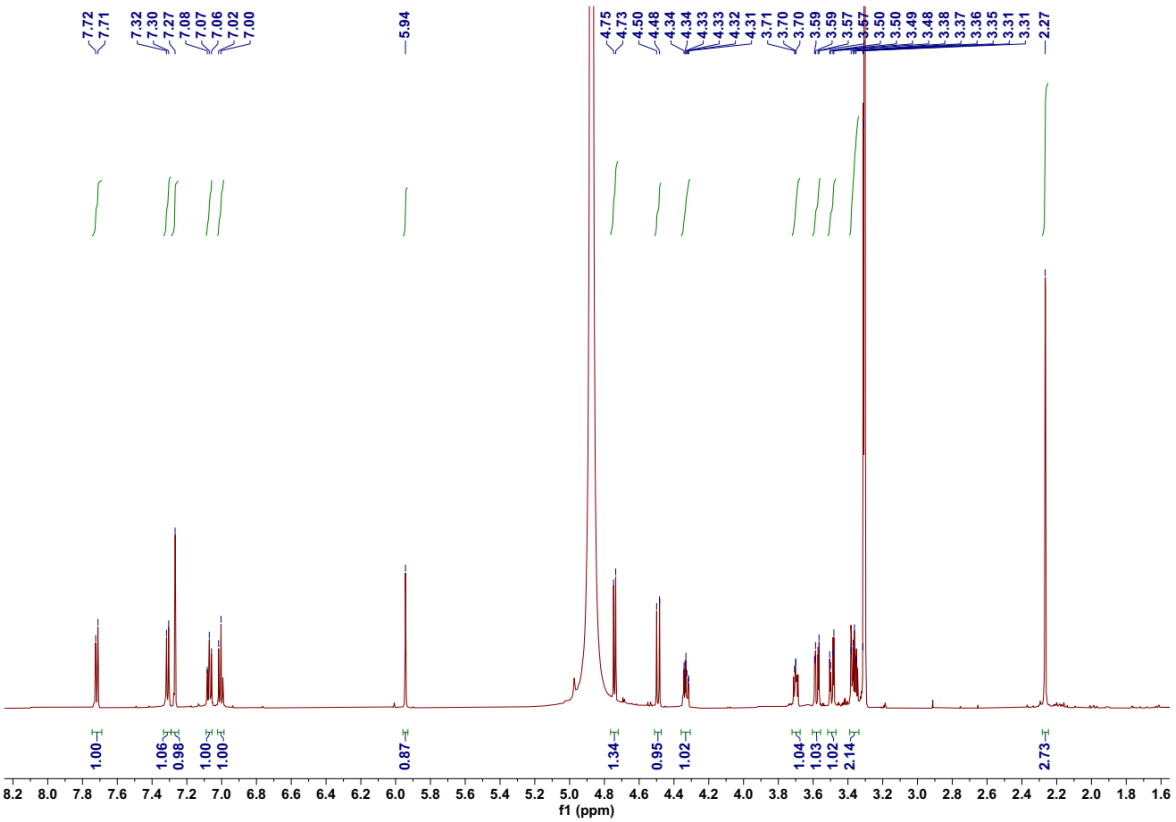

Figure S35. ^{1}H NMR spectrum of **5** in methanol-d_4 (600 MHz)

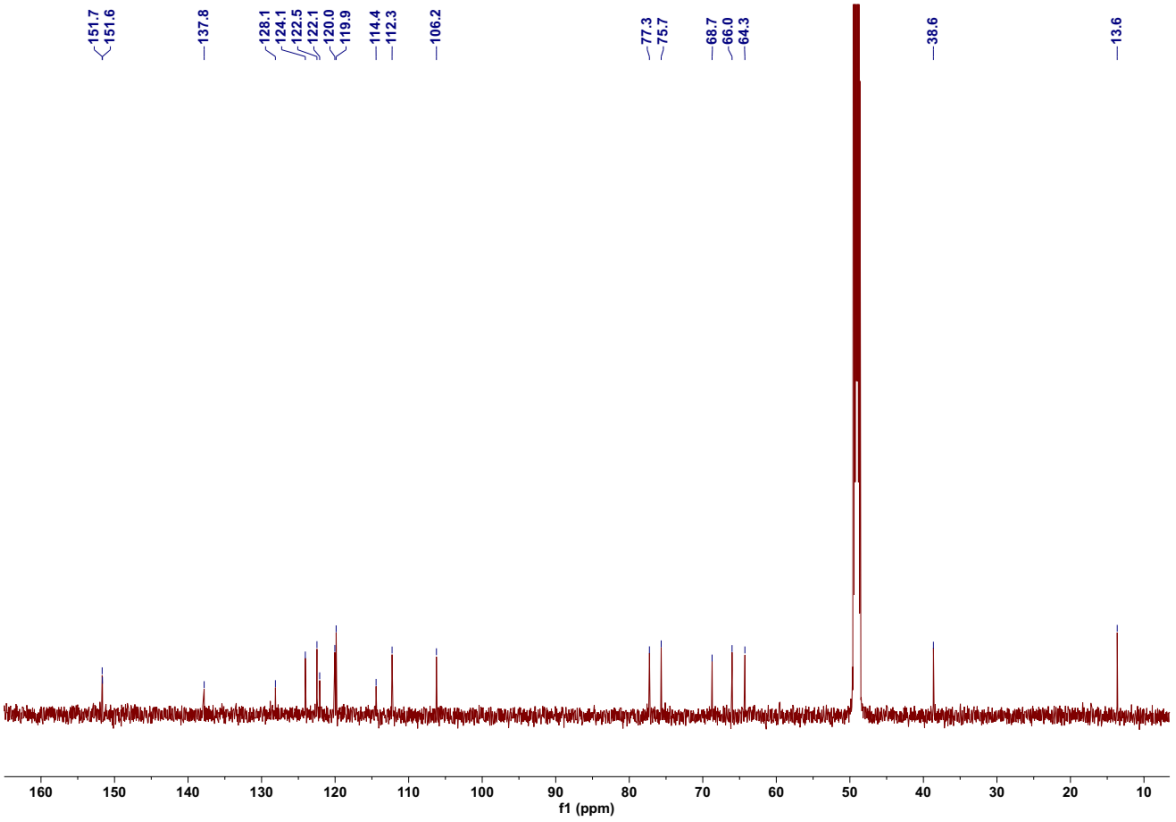

Figure S36. ^{13}C NMR spectrum of **5** in methanol-d_4 (600 MHz)

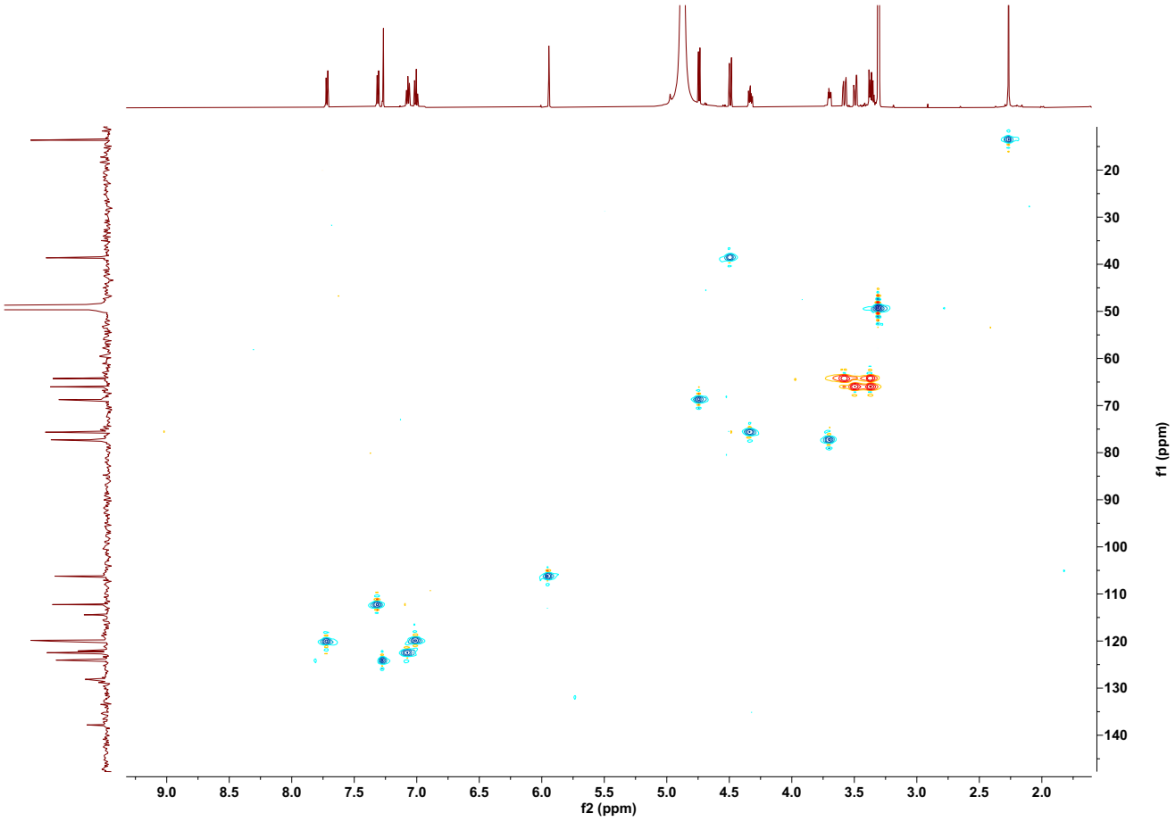

Figure S37. HSQC spectrum of **5** in methanol-d_4

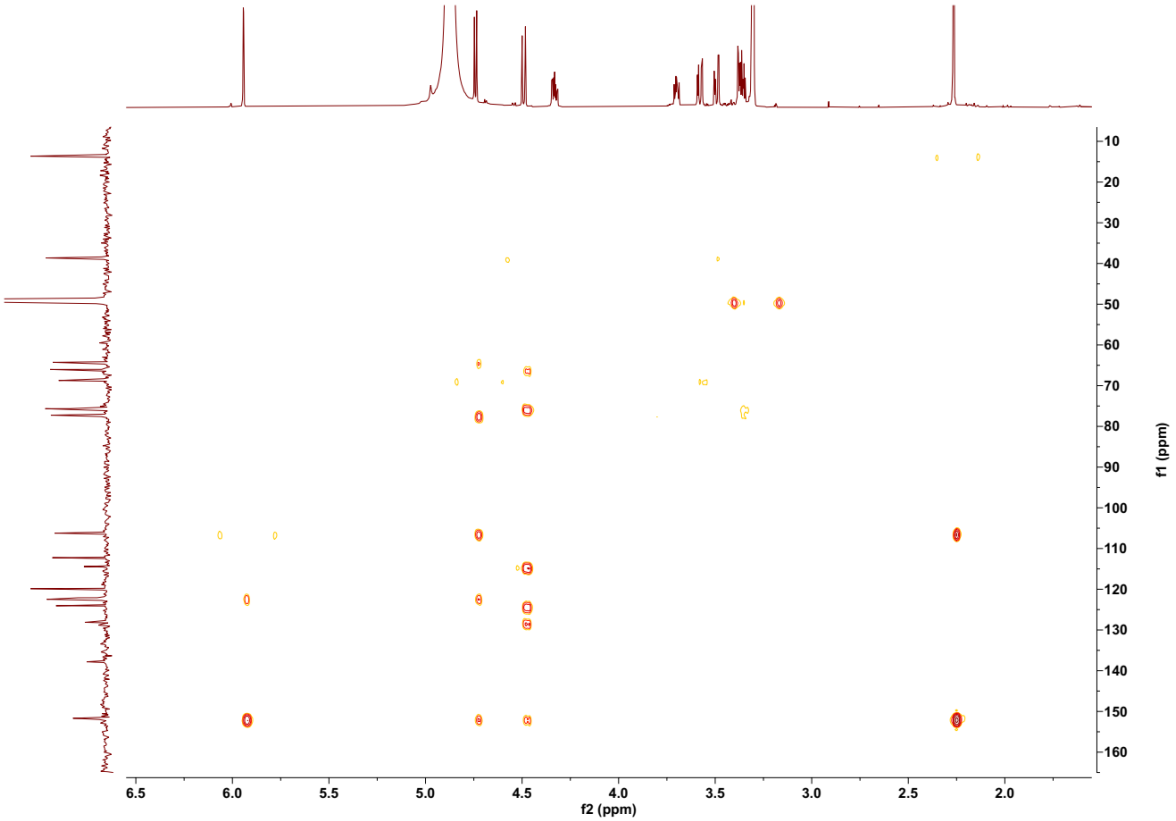

Figure S38. HMBC spectrum of **5** in methanol-d_4

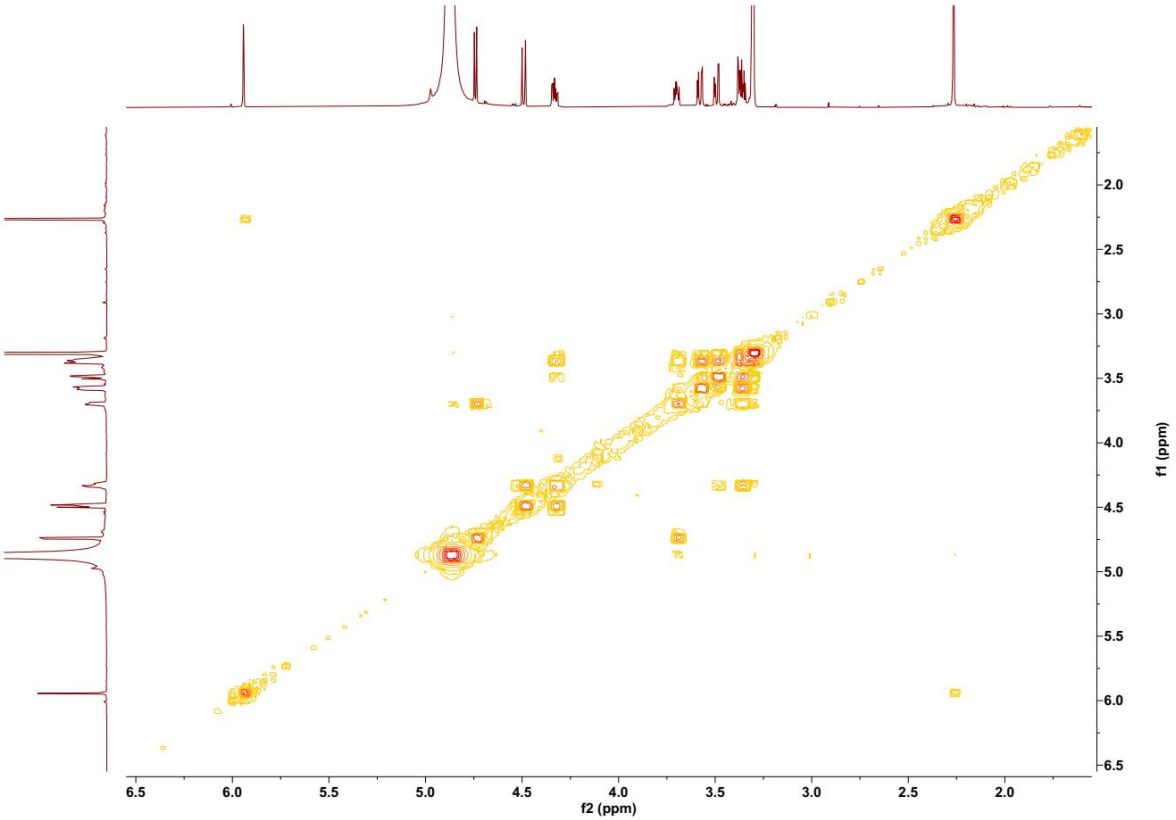

Figure S39. ^{1}H-^{1}H COSY spectrum of **5** in methanol-d_4

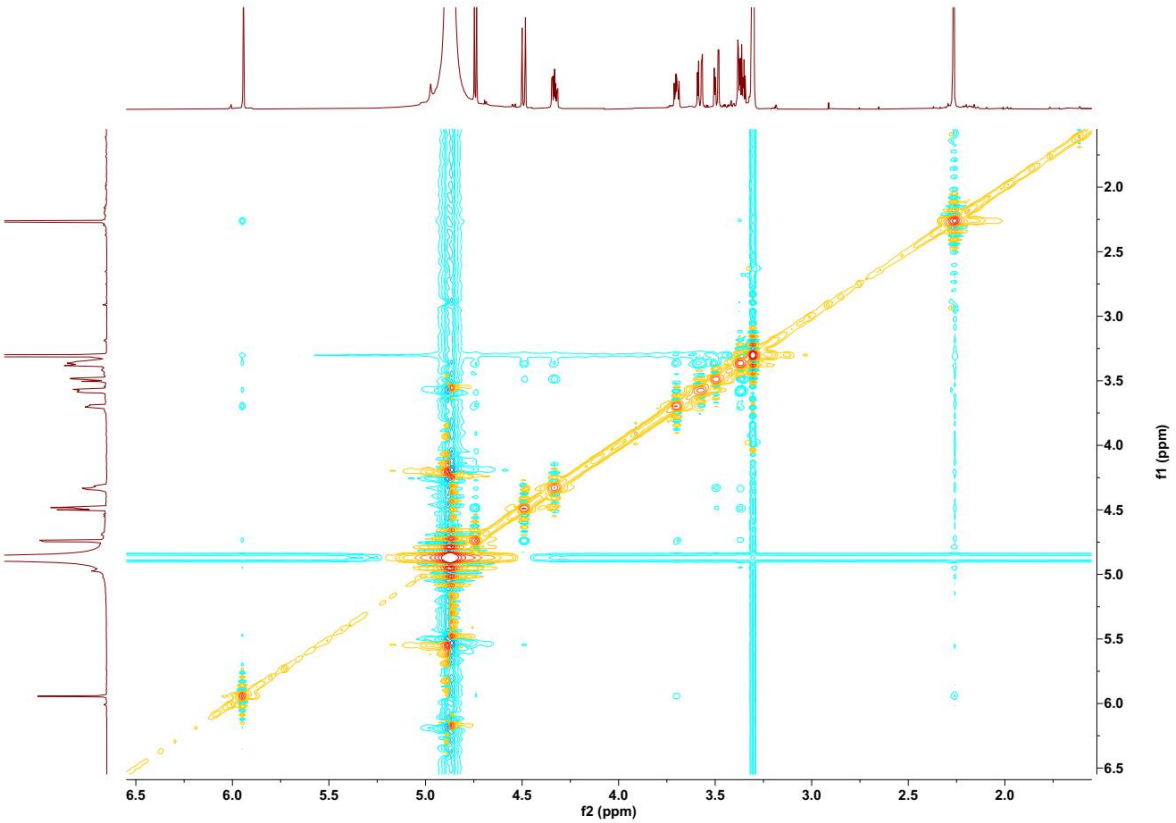

Figure S40. NOESY spectrum of **5** in methanol-d_4

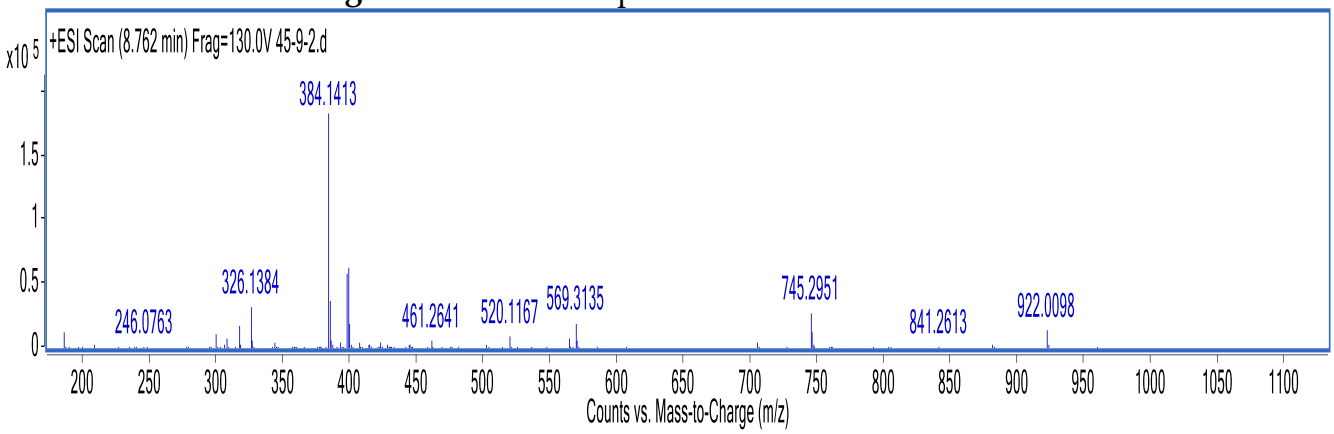

Figure S41. HRESIMS spectrum of **5**