SUPPORTING INFORMATION

Antimicrobial Sesquiterpenes from the Cultured Mycobiont *Diorygma pruinosum* against Methicillin-Resistant *Staphylococcus aureus* Isolated from Vietnamese Street Foods

TABLE OF CONTENTS

Table S1. ^{1}H (500 MHz) and ^{13}C (125 MHz) NMR data of **2**, **4**, and hydroxypruinosone (acetone-d_6, δ, ppm, J/Hz).

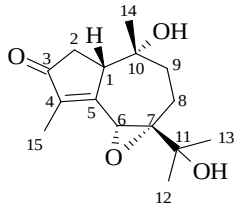
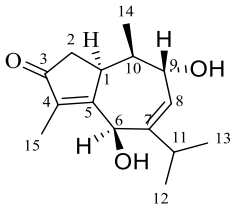
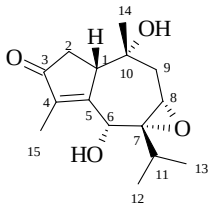
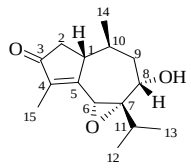
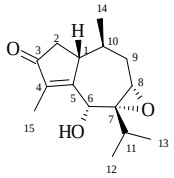
No	**2** 		**4** 		**Hydroxypruinosone** 	
	δ_H	δ_C	δ_H	δ_C	δ_H	δ_C
1	3.04 (d, 9.0)	50.3	3.93 (m)	37.0	3.38 (d, 6.5)	50.5
2	2.51 (m) 2.29 (m)	45.3	2.46 (m) 2.08 (m)	39.3	2.26 (m) 2.46 (d, 10.0)	43.4
3		206.4		208.3	-	208.7
4		141.3		135.7	-	139.1
5		165.7		169.3	-	168.2
6	4.20 (s)	57.0	4.95 (d, 8.5)	68.9	5.02 (s)	66.6
7		70.7		151.6	-	64.9
8	1.65 (m) 1.60 (m)	23.8	5.79 (d, 7.5)	128.4	3.14 (t, 6.5)	57.3
9	2.26 (m) 2.22 (m)	38.6	4.17 (dd, 12.5, 6.0)	70.8	2.26 (m) 2.32 (dd, 7.5, 12.0)	37.7
10		72.1	2.40 (dd, 13.5, 6.0)	37.3	-	73.8
11		70.5	2.32 (hept, 7.0)	41.3	1.88 (hep, 6.5)	30.7
12	1.30 (s)	26.1	1.09 (d, 7.0)	21.5	0.80 (d, 6.5)	17.3
13	1.23 (s)	26.0	1.08 (d, 6.5)	22.3	1.04 (d, 7.0)	17.7
14	0.78 (s)	19.2	0.56 (d, 7.0)	10.5	0.94 (s)	19.9
15	1.76 (d, 1.5)	8.0	1.67 (d, 1.5)	8.2	1.76 (d, 1.5)	9.1
6-OH			5.38, (d, 8.5)		3.63 (brs)	
9-OH			5.19, (d. 5.5)			
10-OH					4.06 (brs)	

Table S2. ^{1}H (500 MHz) and ^{13}C (125 MHz) NMR data of **3** and pruinosone (acetone-d_6, δ, ppm, J/Hz).

No	**3**		**Pruinosone**	
				
	δ_H	δ_C	δ_H	δ_C
1	3.05 (m)	43.9	3.28 (m)	43.8
2	2.42 (dd, 18.5, 7.0) 2.03 (m)	40.8	2.08 (m) 2.32 (m)	38.1
3		206.4		208.1
4		138.7		137.6
5		165.6		170.8
6	3.76 (s)	54.4	5.04 (d, 4.0)	66.8
7		73.2		66.4
8	4.23 (ddd, 11.5, 7.0, 3.5)	66.4	3.13 (t, 6.0)	61.4
9	2.03 (m) 1.88 (m)	40.4	2.08 (m) 1.90 (m)	32.7
10	2.08 (m)	32.5	2.32 (m)	33.2
11	2.80 (m)	29.1	1.87 (hep, 6.5)	30.7
12	0.86 (d, 7.0)	16.2	0.89 (d, 7.0)	17.5
13	1.10 (d, 7.0)	20.0	1.04 (d, 7.0)	17.7
14	0.57 (d, 7.0)	11.3	0.81 (d, 7.5)	14.6
15	1.78 (d, 1.5)	7.7	1.74 (d, 1.5)	8.8
6-OH			3.53 (d, 4.0)	

A. **B.**

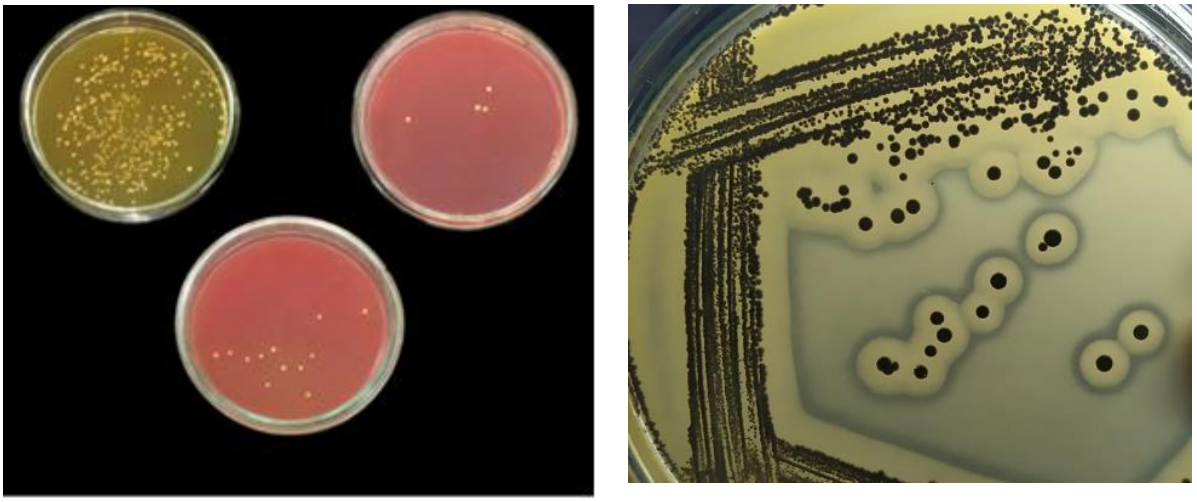


Figure S1. *S. aureus* on mannitol salt agar (A) and Baird-Parker agar with tellurite egg yolk (B)

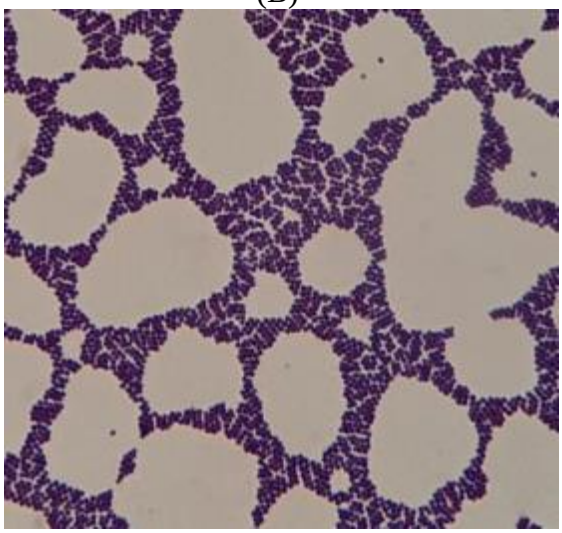


Figure S2. Gram stain of *S. aureus*

Figure S3. Catalase test result
A: negative control B: a presumptive *S. aureus* isolate (catalase positive)

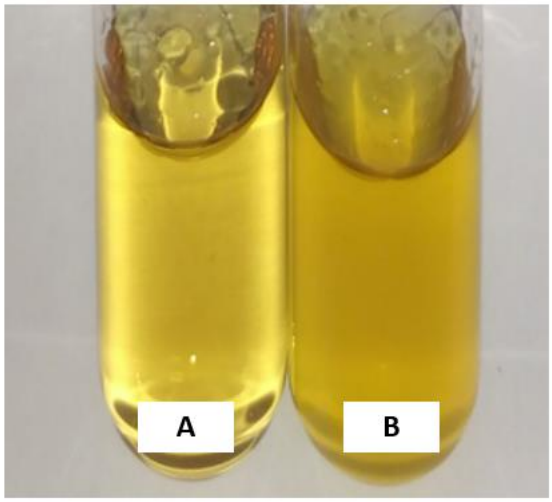


Figure S4. Indole test result
A: negative control B: a presumptive *S. aureus* isolate (Indole negative)

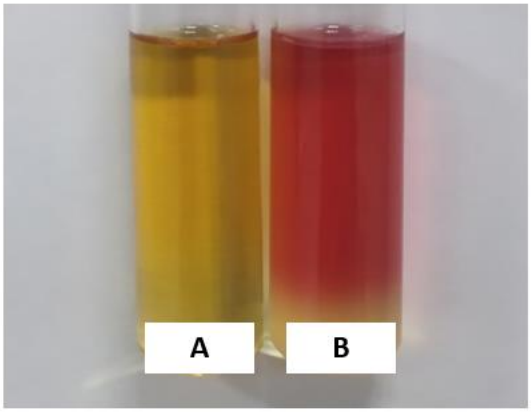


Figure S5. Methyl red test result
A: negative control B: a presumptive *S. aureus* isolate (methyl red positive)

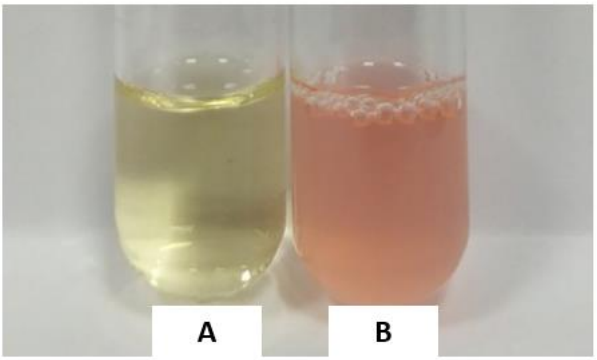


Figure S6. Voges Proskauer test result
A: negative control B: a presumptive *S. aureus* isolate (Voges Proskauer positive)

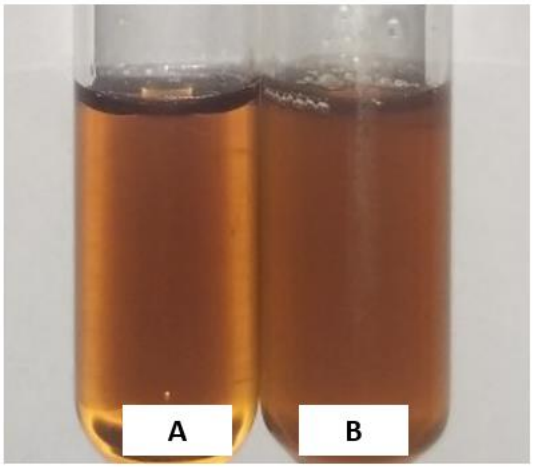


Figure S7. Oxidase test result
A: negative control B: a presumptive *S. aureus* isolate (oxidase negative)

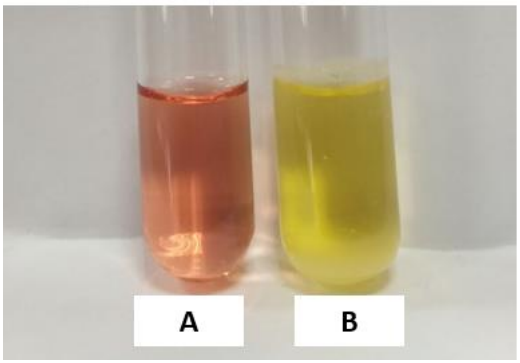
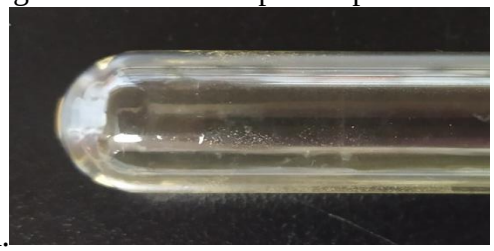


Figure S8. Carbohydrate fermentation test result
A: negative control B: a presumptive *S. aureus* isolate (Carbohydrate fermentation positive)

A. 

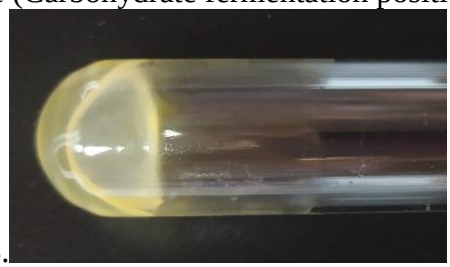
B. 

Figure S9. Coagulase test result
A: negative control B: a presumptive *S. aureus* isolate (Coagulase positive)

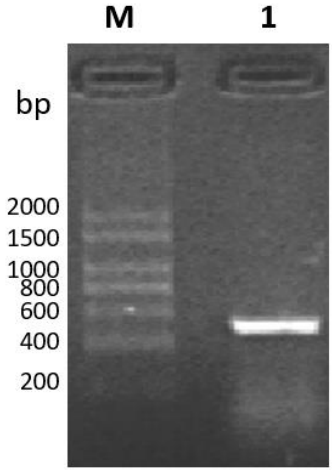


Figure S10. Gel electrophoresis of PCR product for detection of mecA gene
Lane M shows DNA ladder, MW 200 – 200 bp fragments (HTBiotech, Vietnam). Lane 1 shows a typical band size 5090 bp of mecA gene corresponding to positive isolates

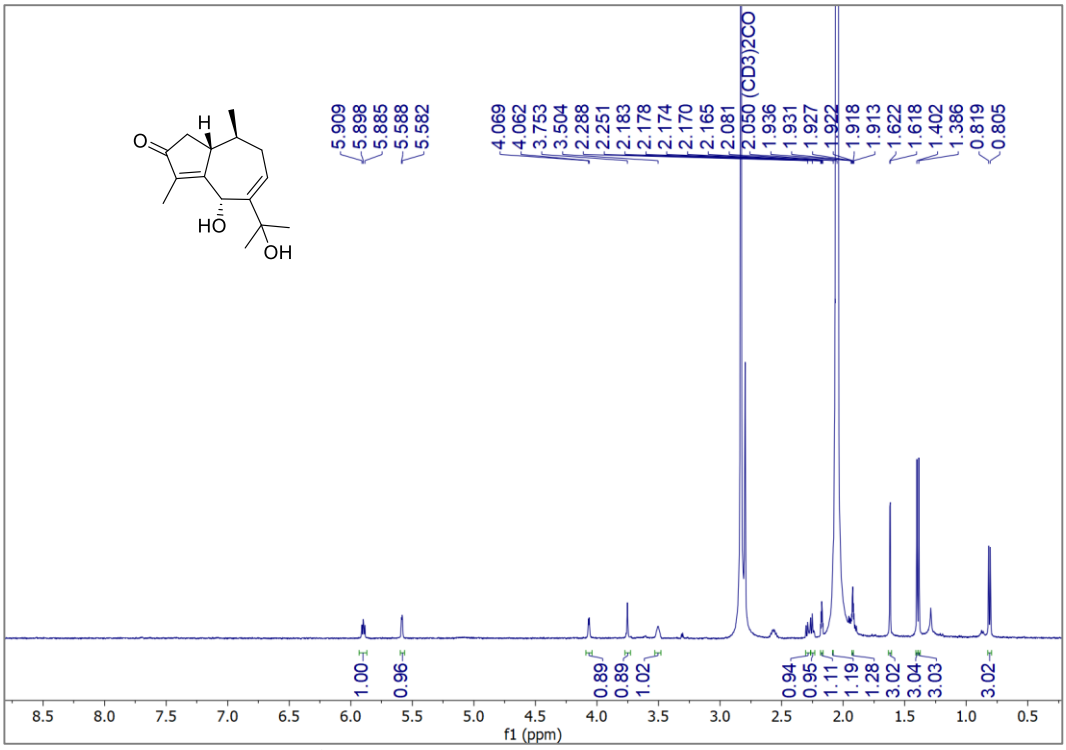


Figure S11. ^{1}H NMR (acetone-d_6, 500 MHz) spectrum of **1**

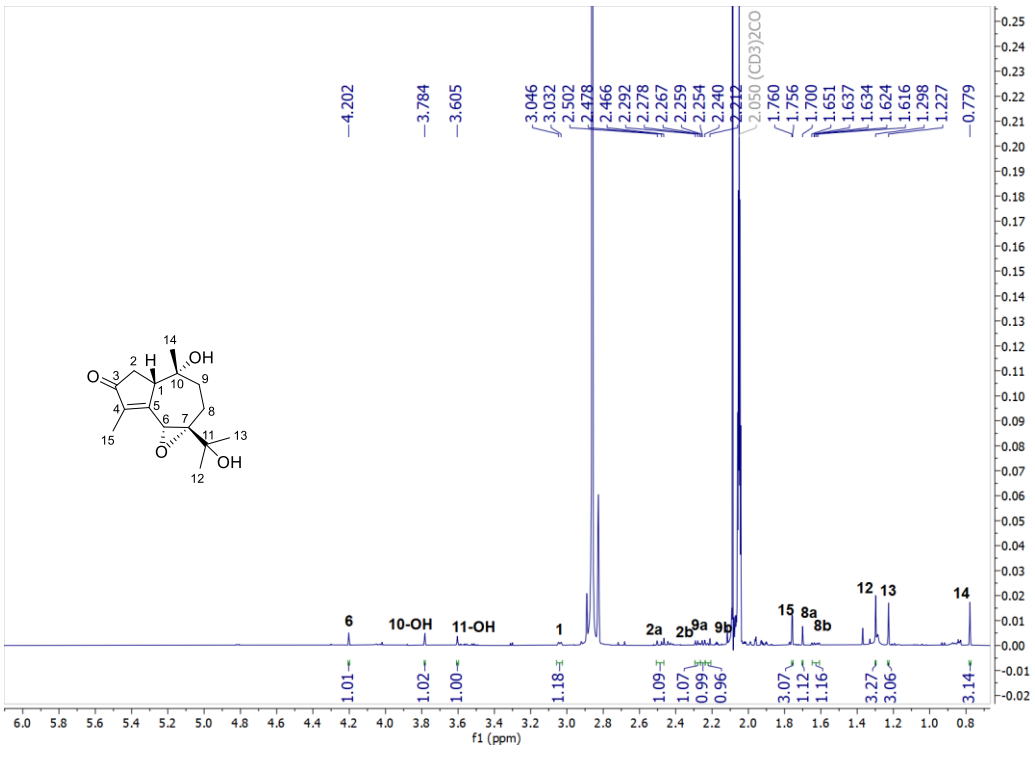


Figure S12. ^{1}H NMR (acetone-d_6, 500 MHz) spectrum of **2**

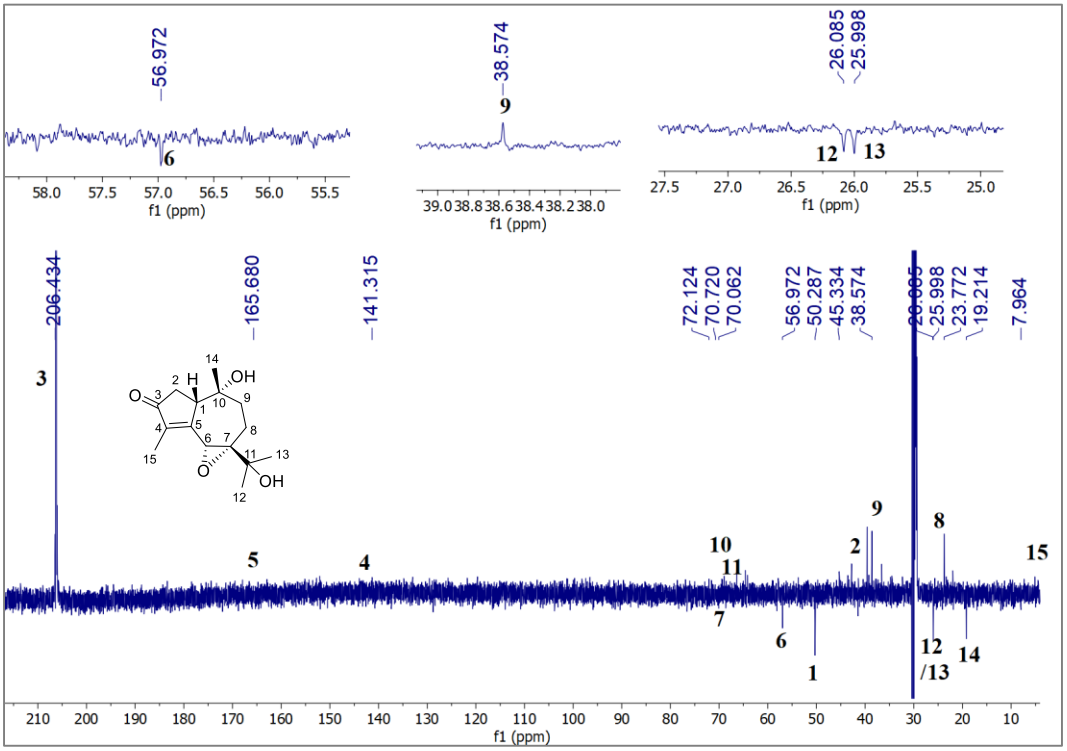


Figure S13. ^{13}C NMR (acetone-d_6, 125 MHz) spectrum of **2**

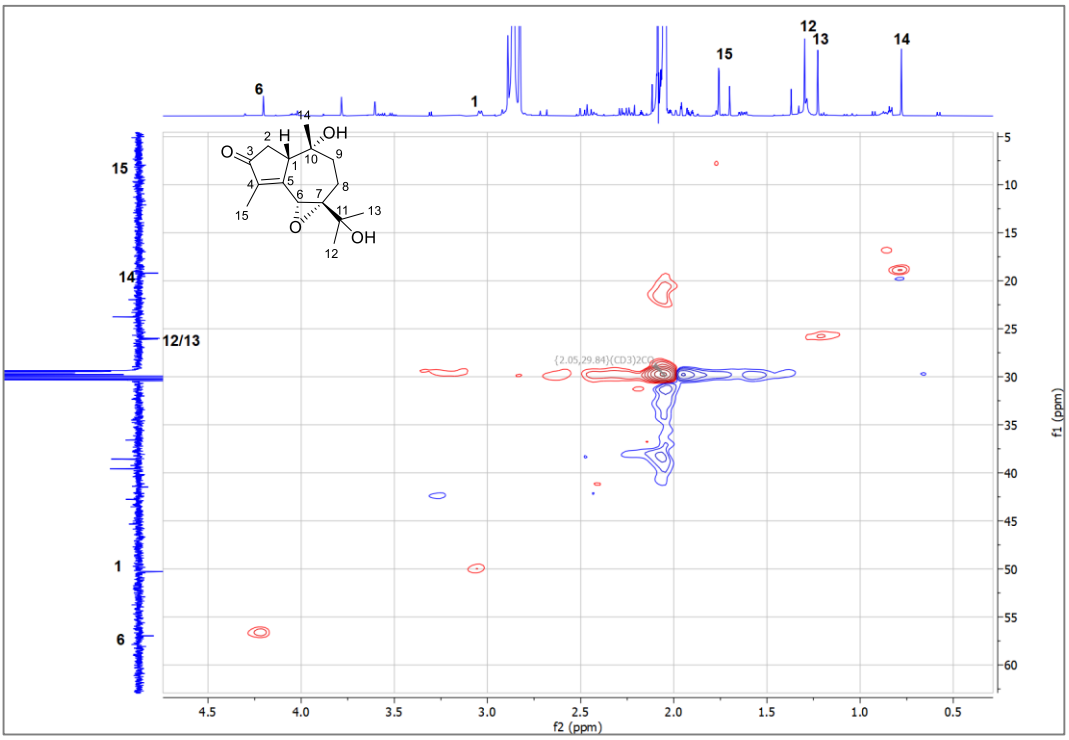


Figure S14. HSQC (acetone-d_6, 500 MHz, 125 MHz) spectrum of **2**

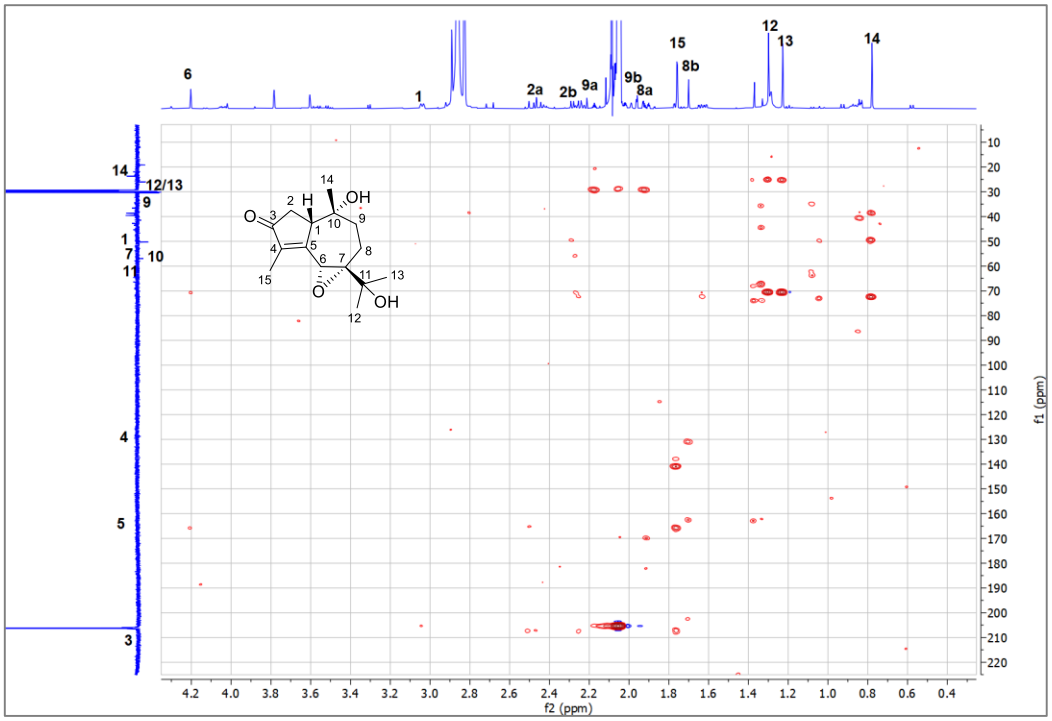


Figure S15. HMBC (acetone-d_6, 500 MHz, 125 MHz) spectrum of **2**

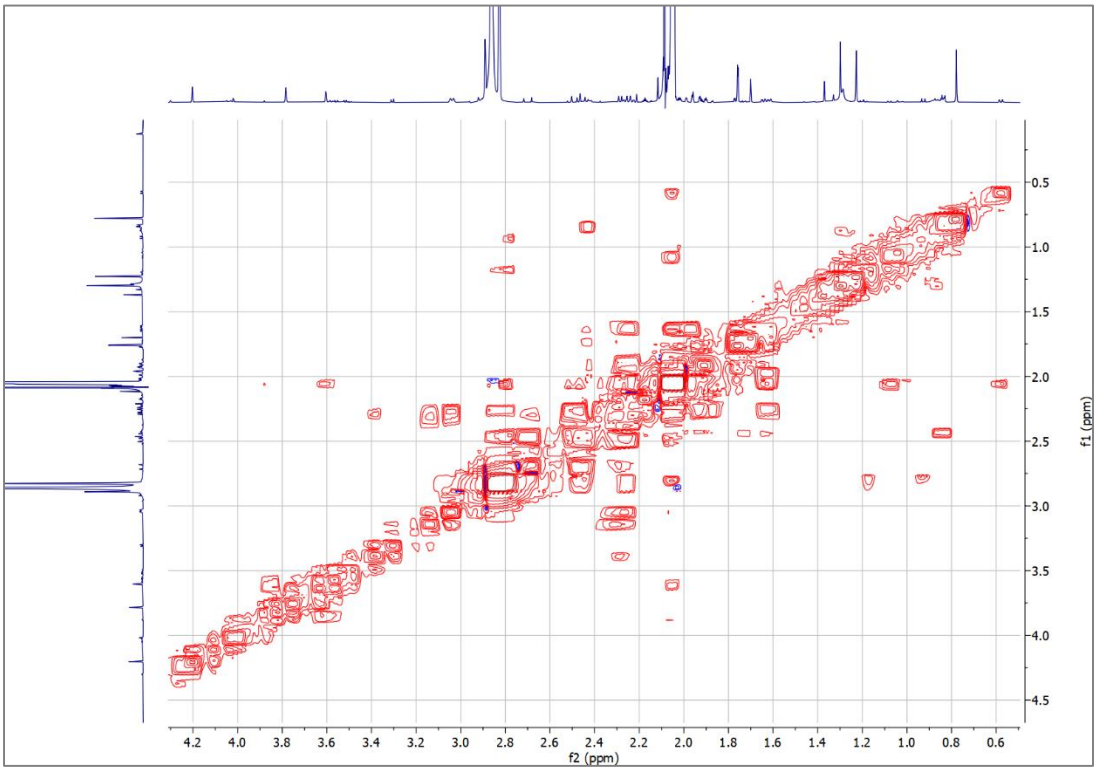


Figure S16. COSY (acetone-d_6, 500 MHz) spectrum of **2**

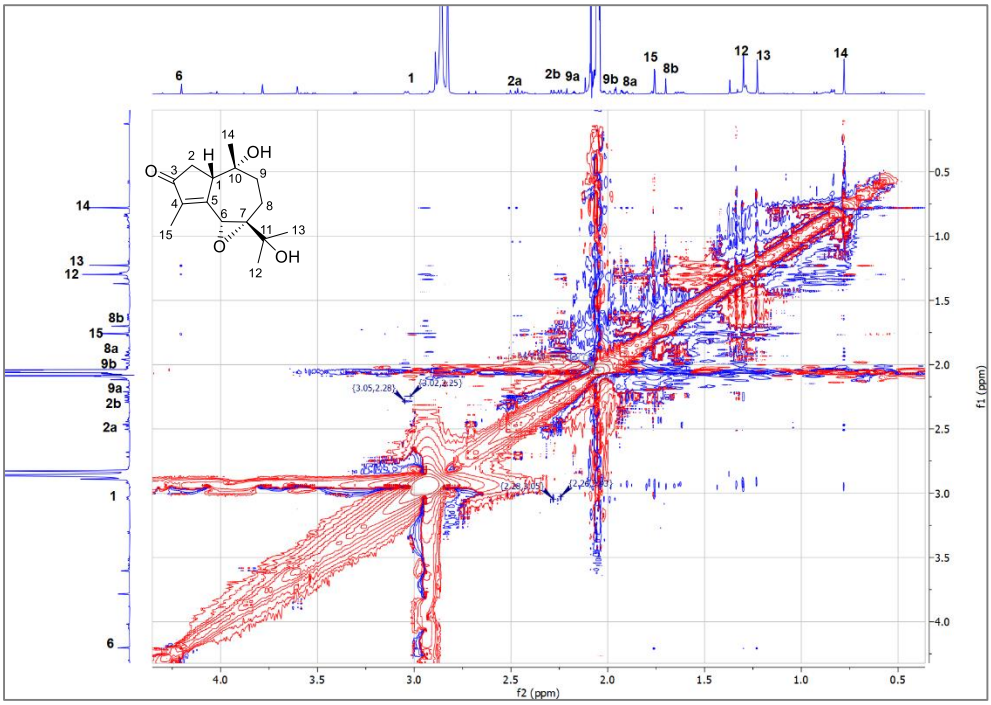


Figure S17. NOESY (acetone-d_6, 500 MHz, 125 MHz) spectrum of **2**

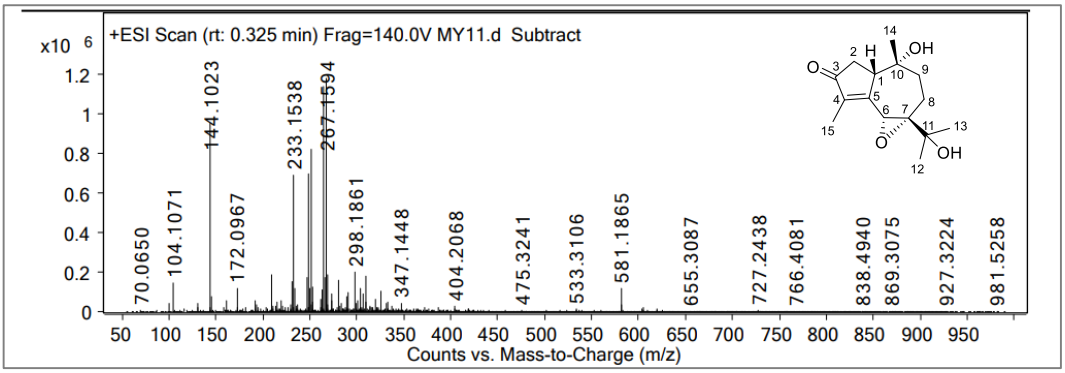


Figure S18. HRESIMS spectrum of **2**

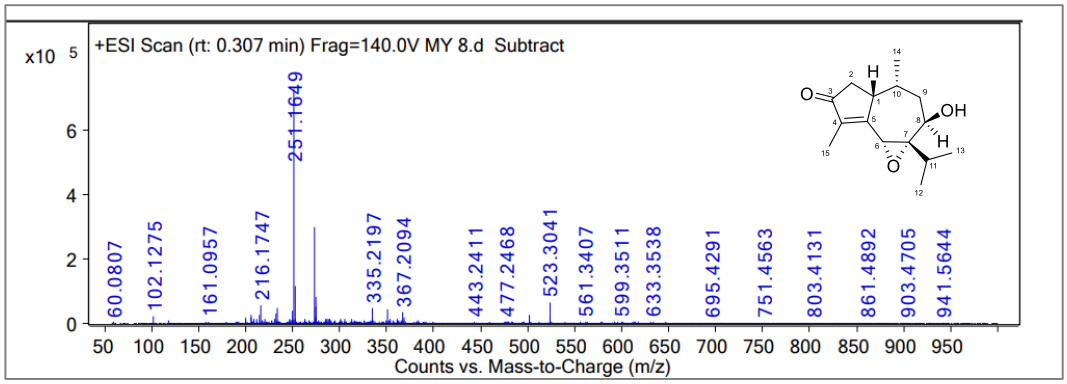


Figure S19. HRESIMS spectrum of **3**

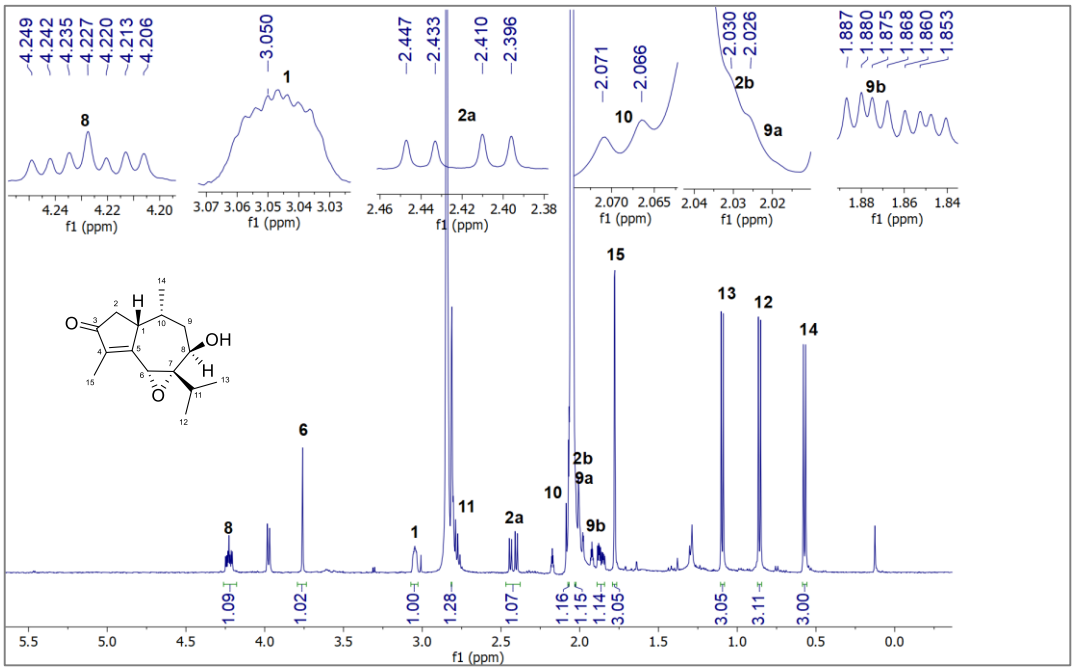


Figure S20. ^{1}H NMR (acetone-d_6, 500 MHz) spectrum of **3**

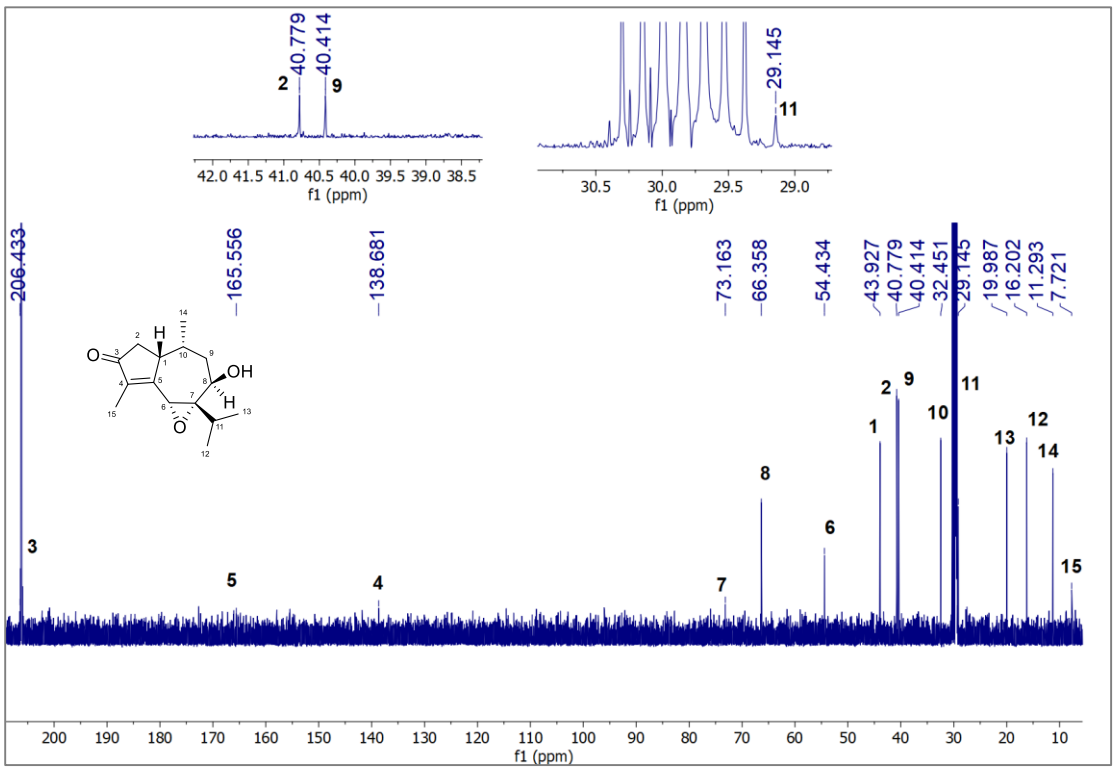


Figure S21. ^{13}C NMR (acetone-d_6, 125 MHz) spectrum of **3**

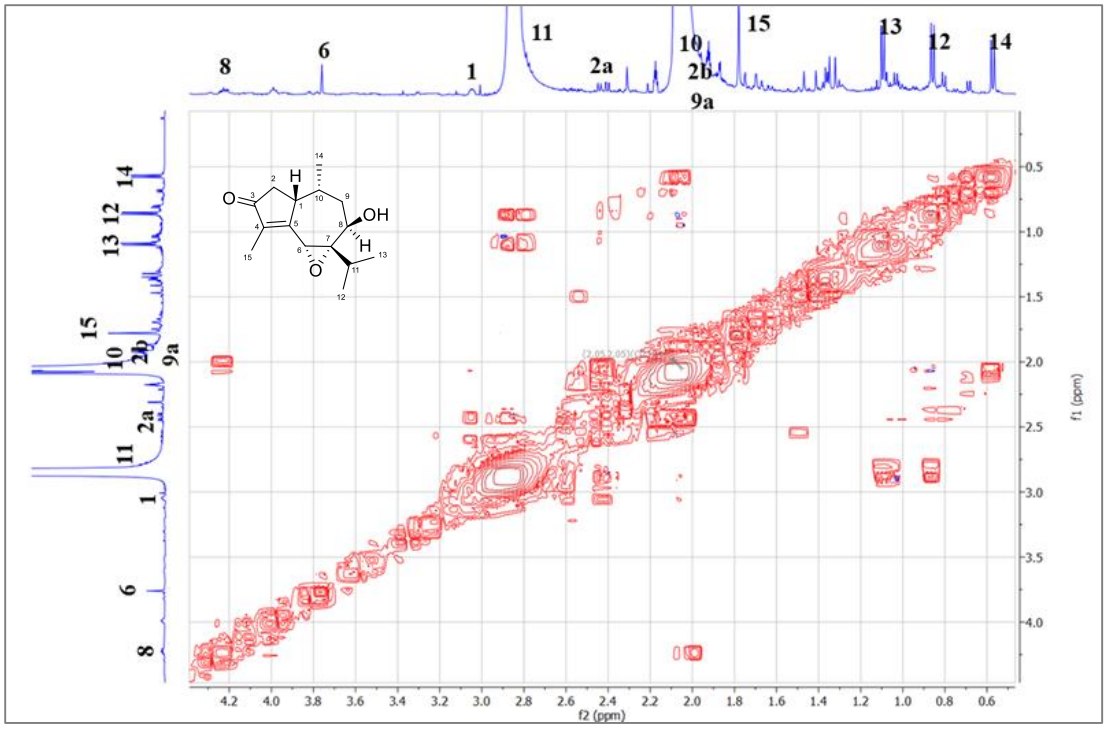


Figure S22. ^{1}H–^{1}H COSY (acetone-d_6, 500 MHz) spectrum of **3**

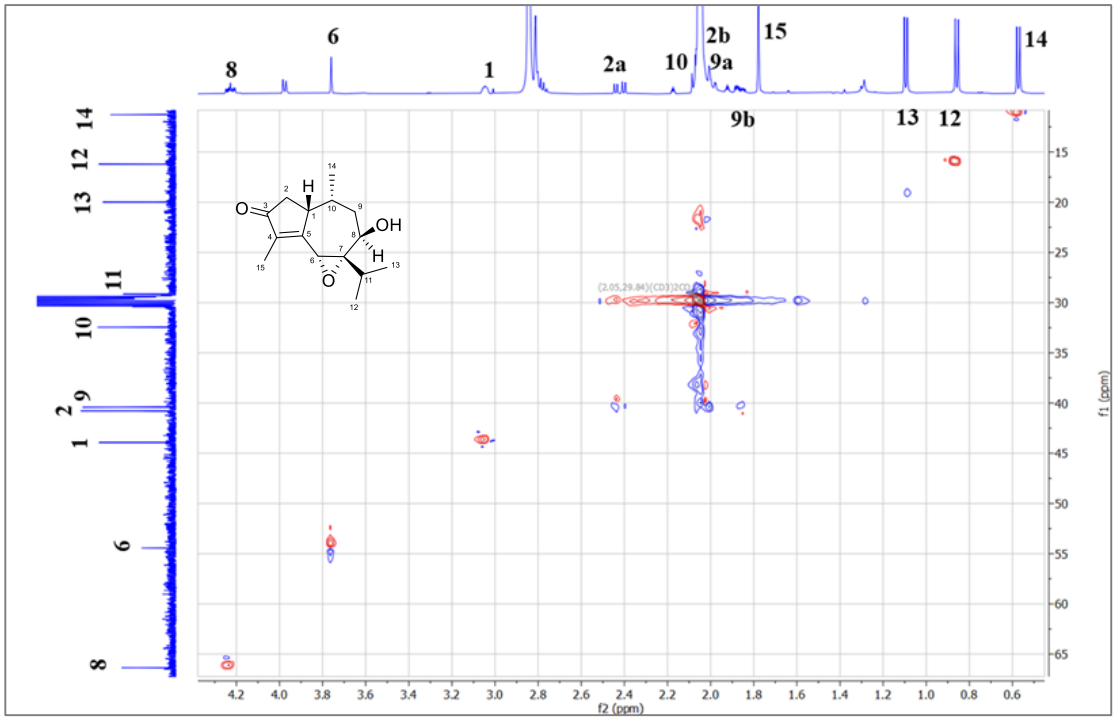


Figure S23. HSQC (acetone-d_6, 500 MHz, 125 MHz) spectrum of **3**

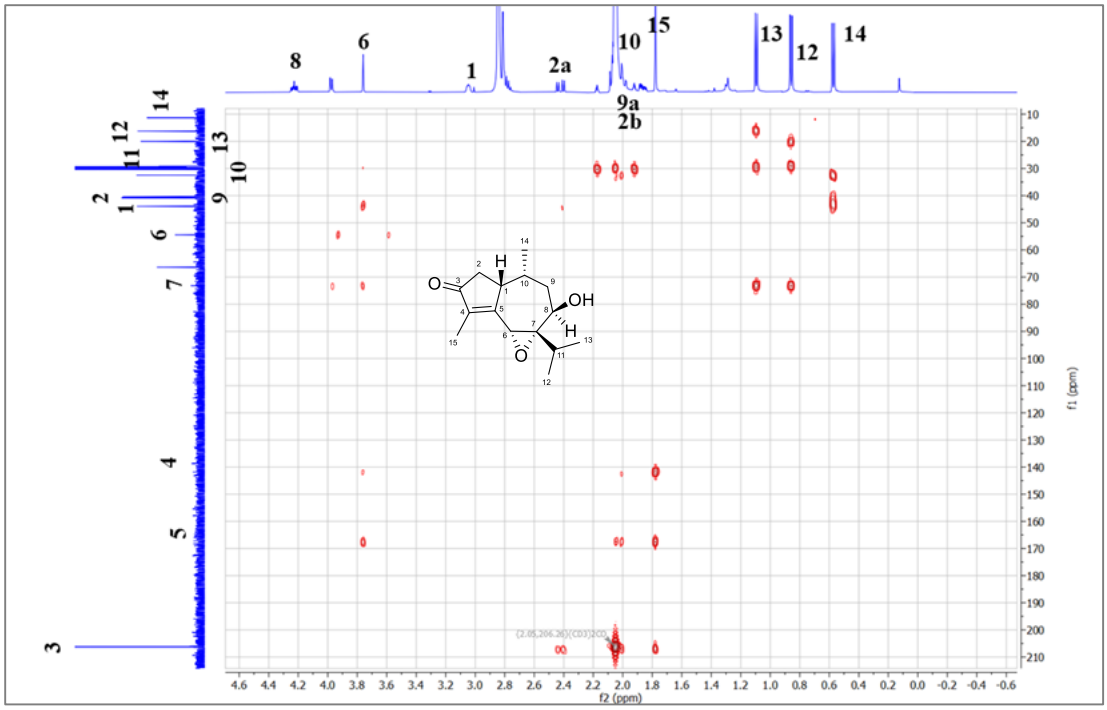


Figure S24. HMBC (acetone-d_6, 500 MHz, 125 MHz) spectrum of **3**

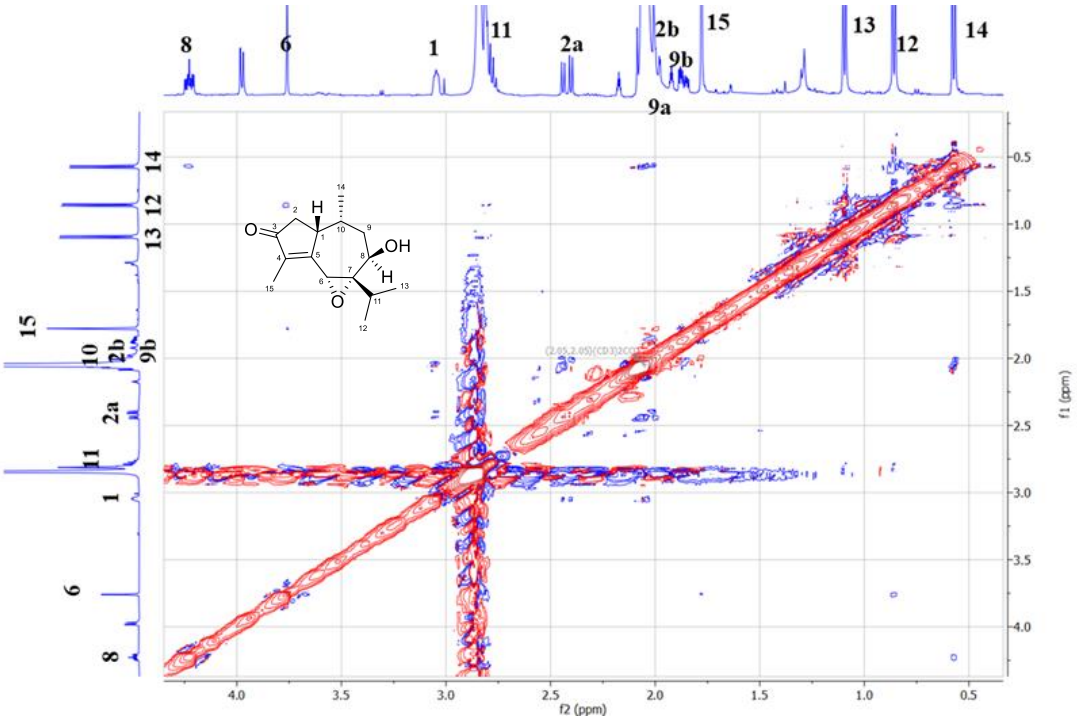


Figure S25. NOESY (acetone-d_6, 500 MHz) spectrum of **3**

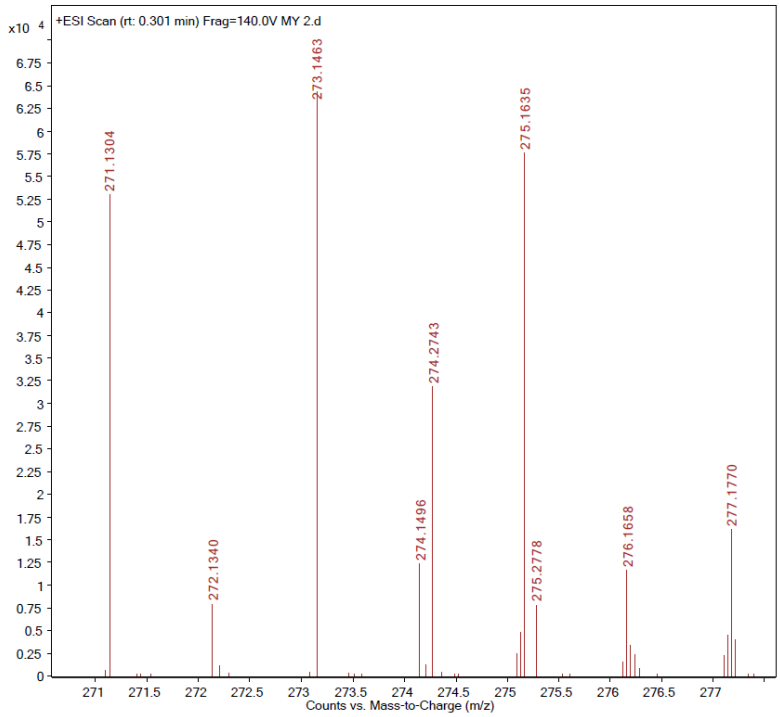


Figure S26. HRESIMS spectrum of **4**

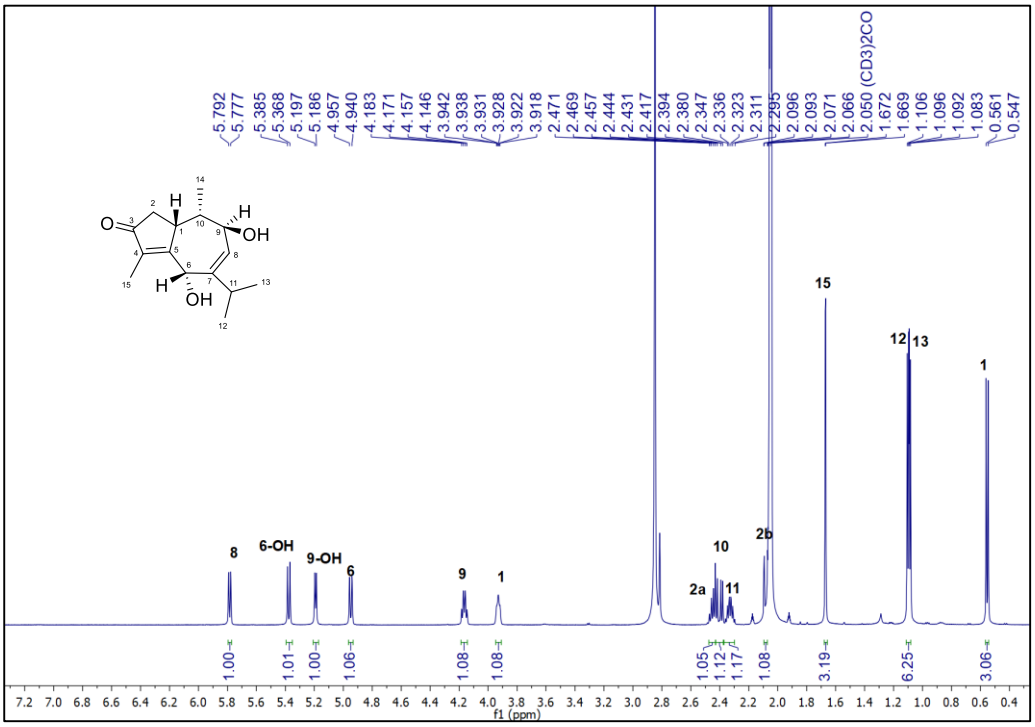


Figure S27. ^{1}H NMR (acetone-d_6, 500 MHz) spectrum of **4**

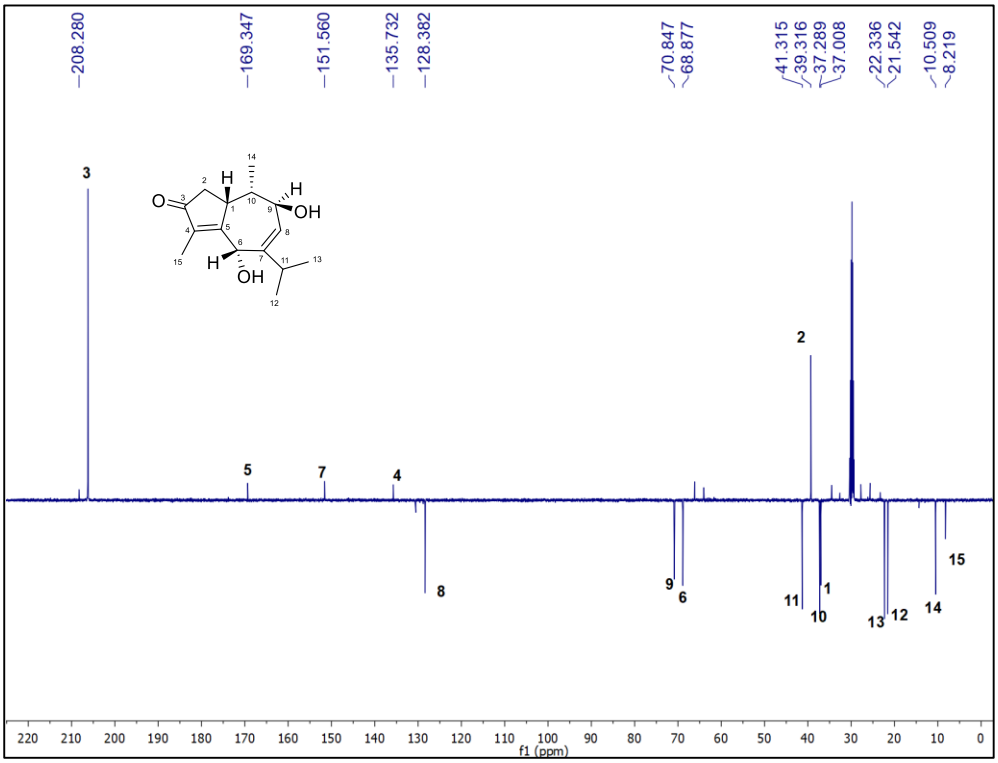


Figure S28. ^{13}C NMR (acetone-d_6, 125 MHz) spectrum of **4**

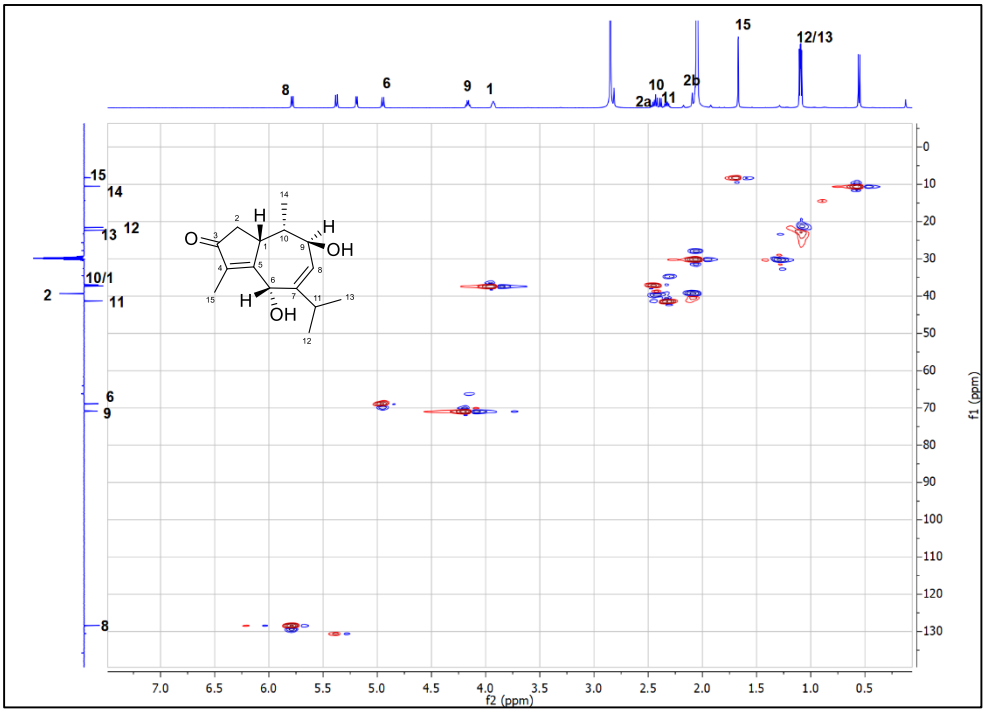


Figure S29. HSQC (acetone-d_6, 500 MHz, 125 MHz) spectrum of **4**

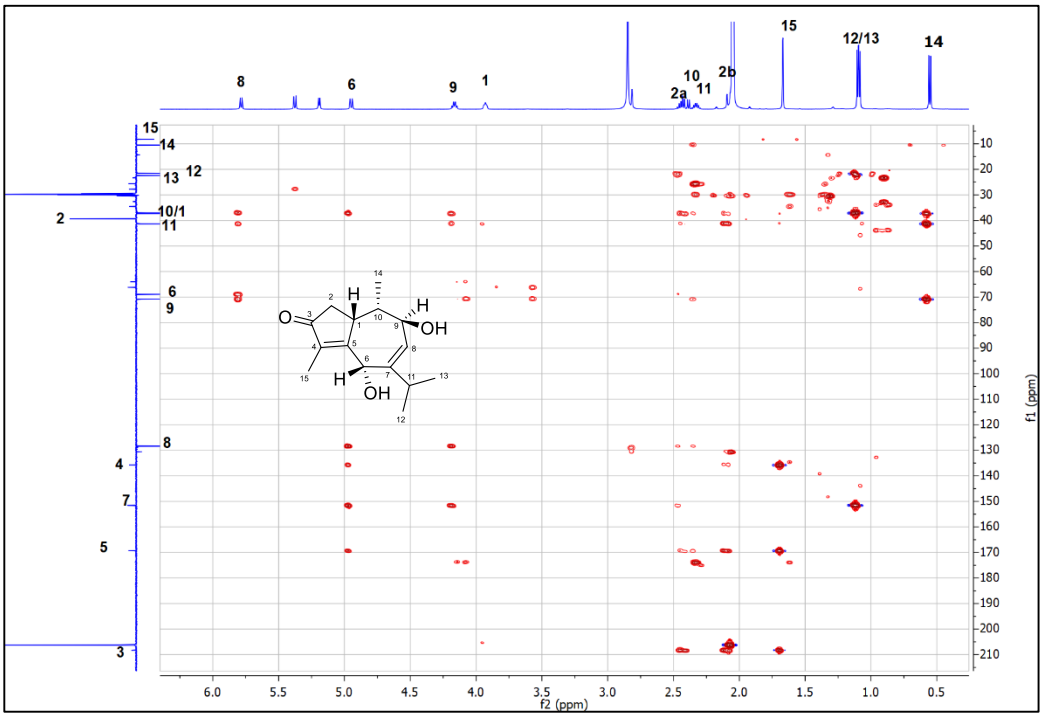


Figure S30. HMBC (acetone-d_6, 500 MHz, 125 MHz) spectrum of **4**

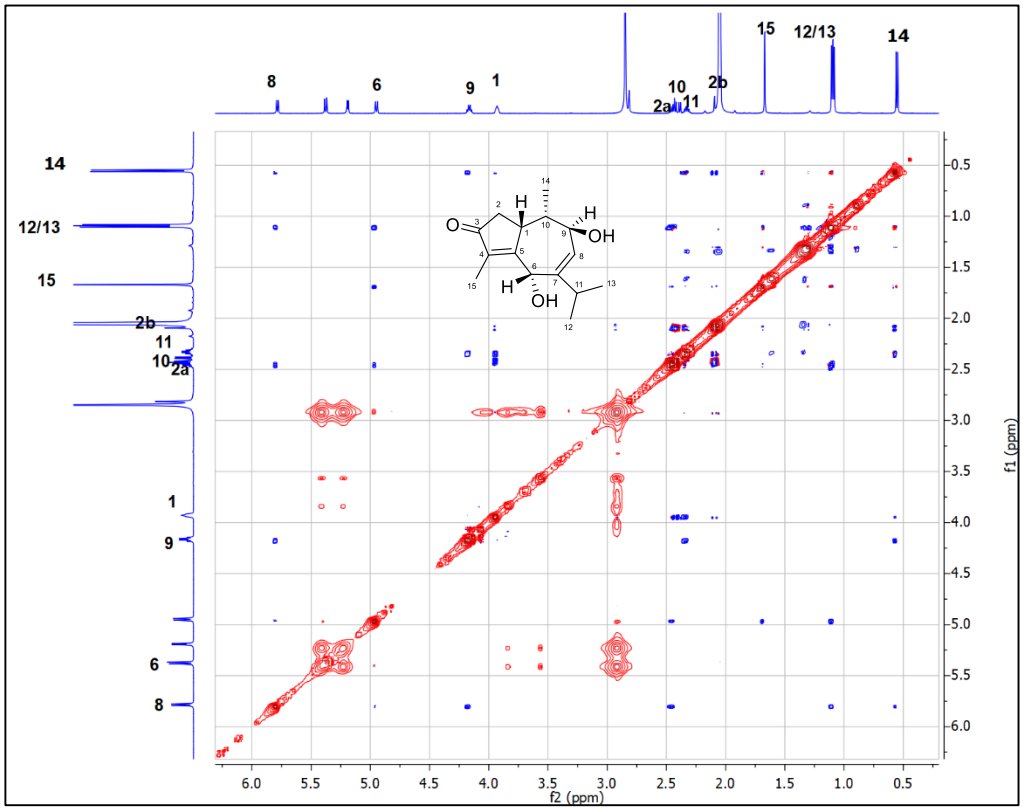


Figure S31. NOESY (acetone-d_6, 500 MHz) spectrum of **4**

High-performance liquid chromatography analysis (HPLC) was conducted using an Agilent 1260 Infinity II system with a Diode Array Detector (DAD). For each prepared sample, 35 µL (at a concentration of 1 mg/mL) was separately injected. A gradient system of acetonitrile (ACN) and water was used, with the following changes over a 60-minute analysis: 5% to 10% ACN in 5 minutes, 10% to 30% ACN in 15 minutes, 30% to 80% ACN in 10 minutes, 80% to 100% ACN in 5 minutes, followed by 100% ACN for 5 minutes. This analysis employed a Luna C18 column (Phenomenex, 150 mm × 4.6 mm, 5 µm) and a C18 guard column (Phenomenex, Torrance, CA, USA)

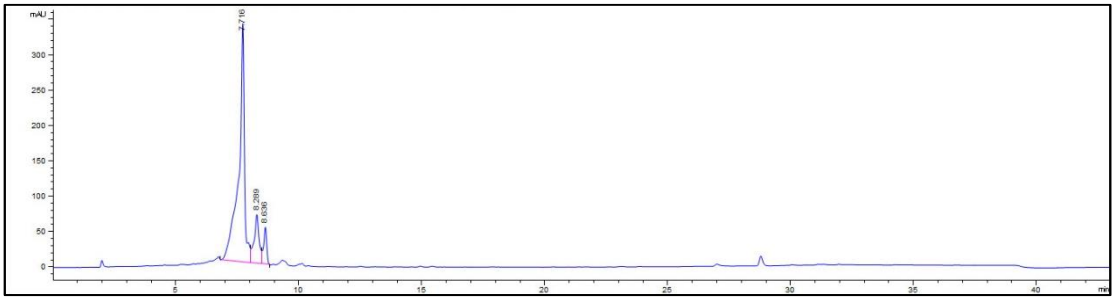


Figure S32. Chromatogram of **2**

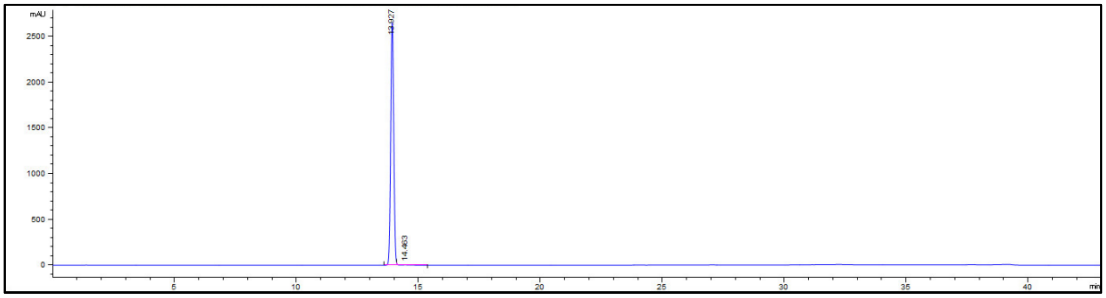


Figure S33. Chromatogram of **3**

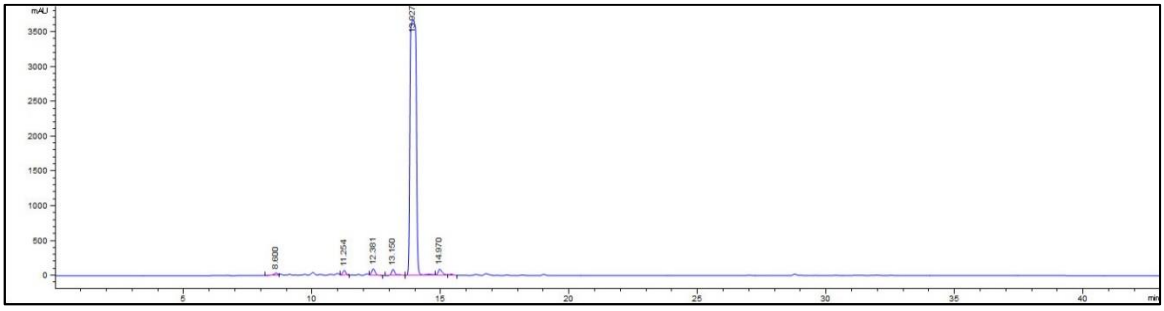


Figure S34. Chromatogram of **4**

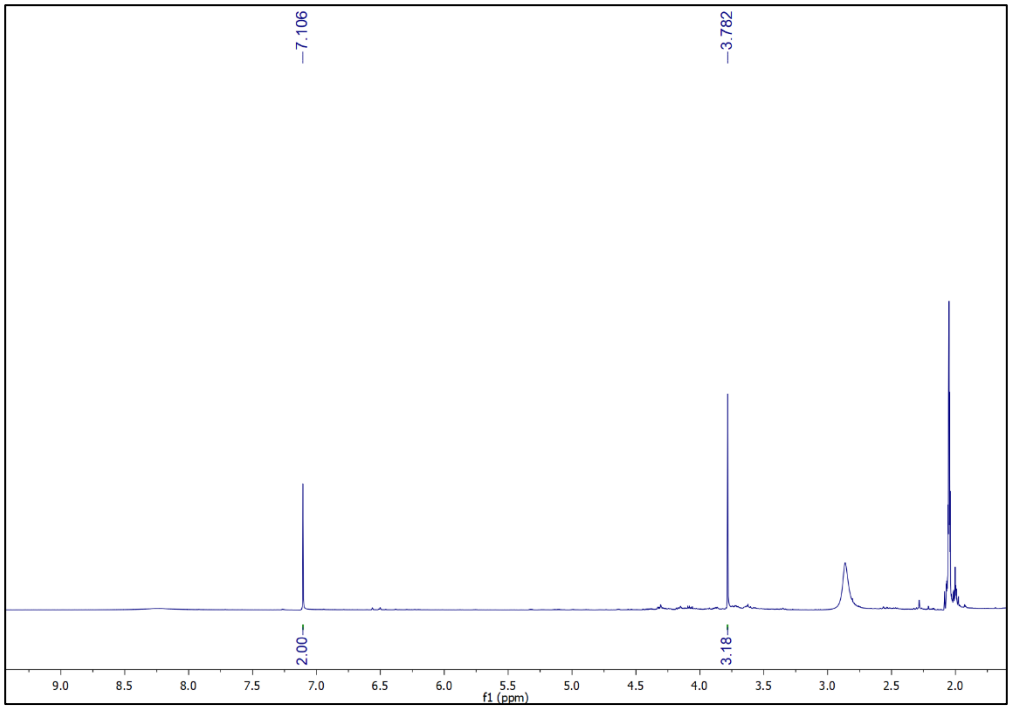


Figure S35. ^{1}H NMR (acetone-d_6, 500 MHz) spectrum of **5**

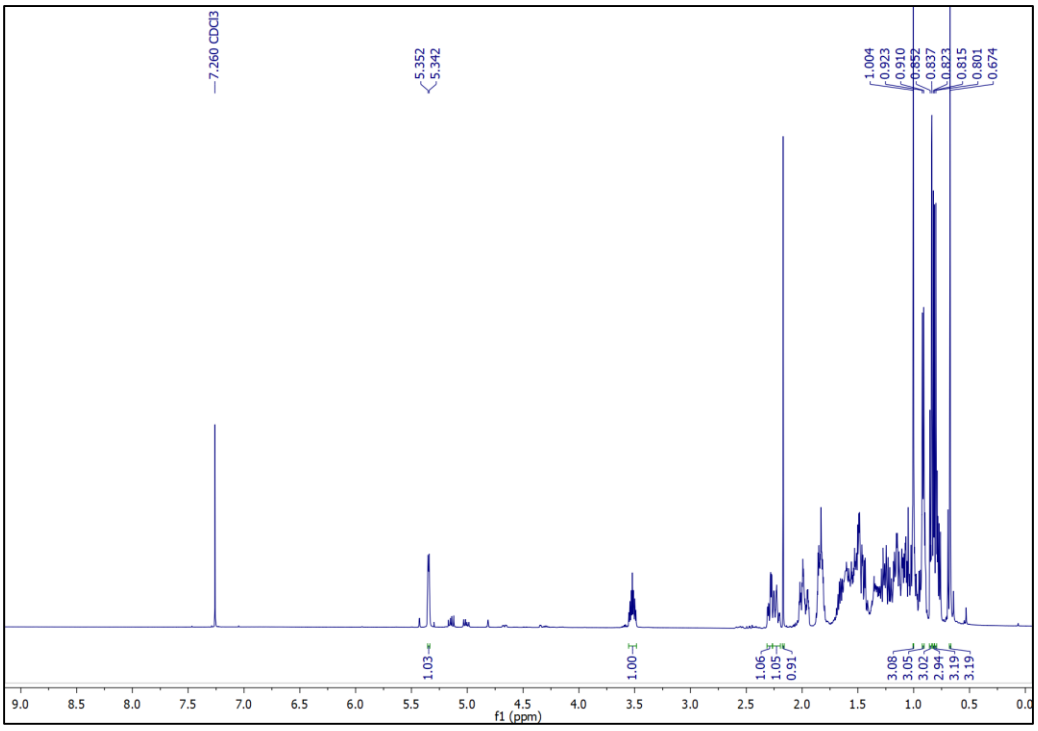


Figure S36. ^{1}H NMR ($CDCl_3$, 500 MHz) spectrum of **6**

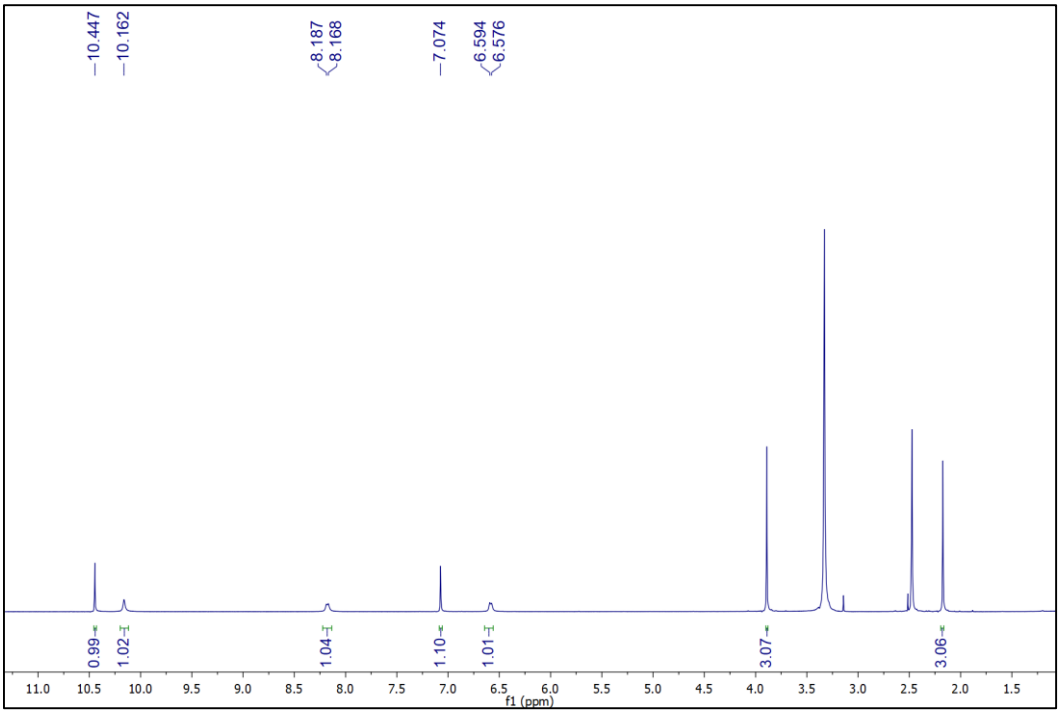


Figure S37. ^{1}H NMR (DMSO-d_6, 500 MHz) spectrum of **7**

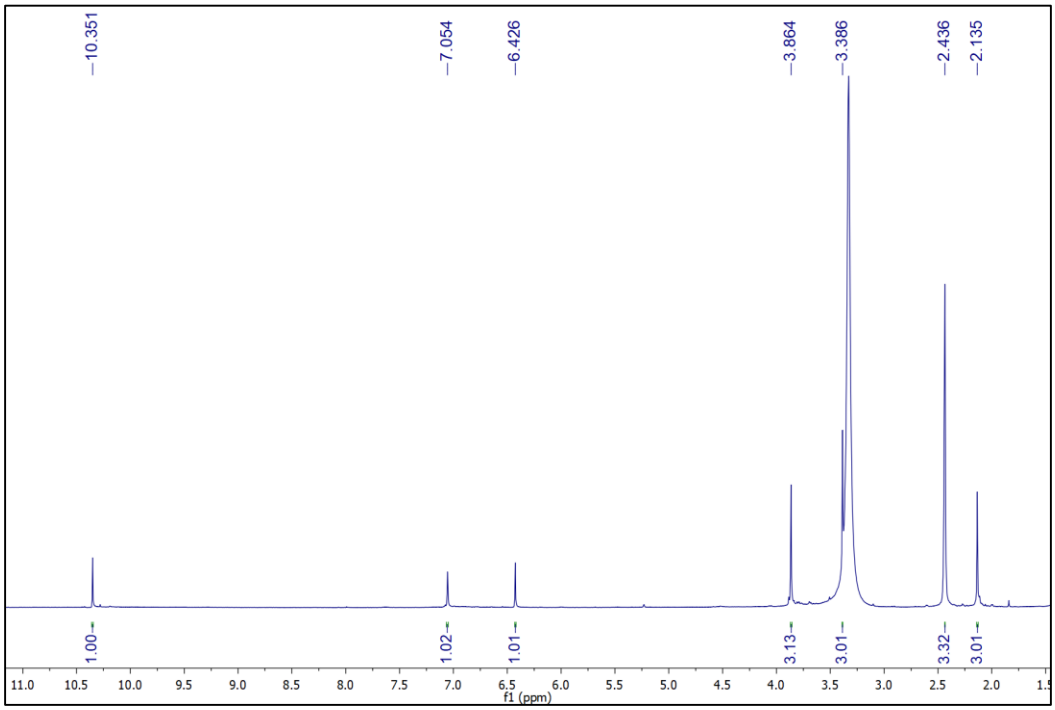


Figure S38. ^{1}H NMR (DMSO-d_6, 500 MHz) spectrum of **8**

References

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