Supporting Information

Euphorstranoids A and B, Two Highly Rearranged Ingenane Diterpenoids from *Euphorbia stracheyi*: Structural Elucidation, Chemical Transformation, and Lipid-Lowering Activity

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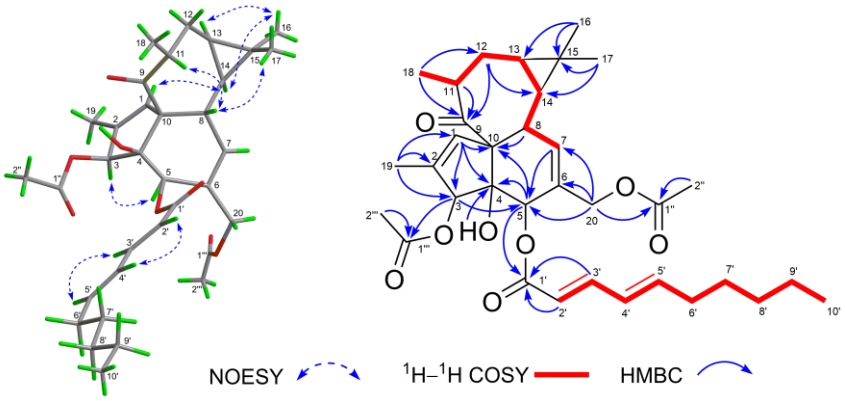


Fig. S1. Key NOESY, ^{1}H–^{1}H COSY, and HMBC correlations of **2**.

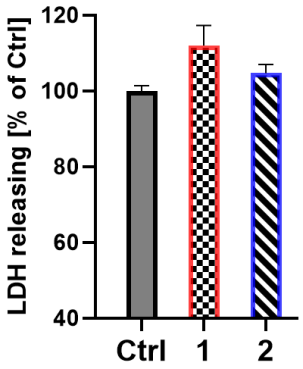


Fig. S2. Evaluation the cytotoxicity of **1** and **2** in 3T3-L1 adipocytes. Cells were treated with **1** and **2** at 40 μM for 48 h, the LDH releasing level was determined. N = 3 independent experiments.

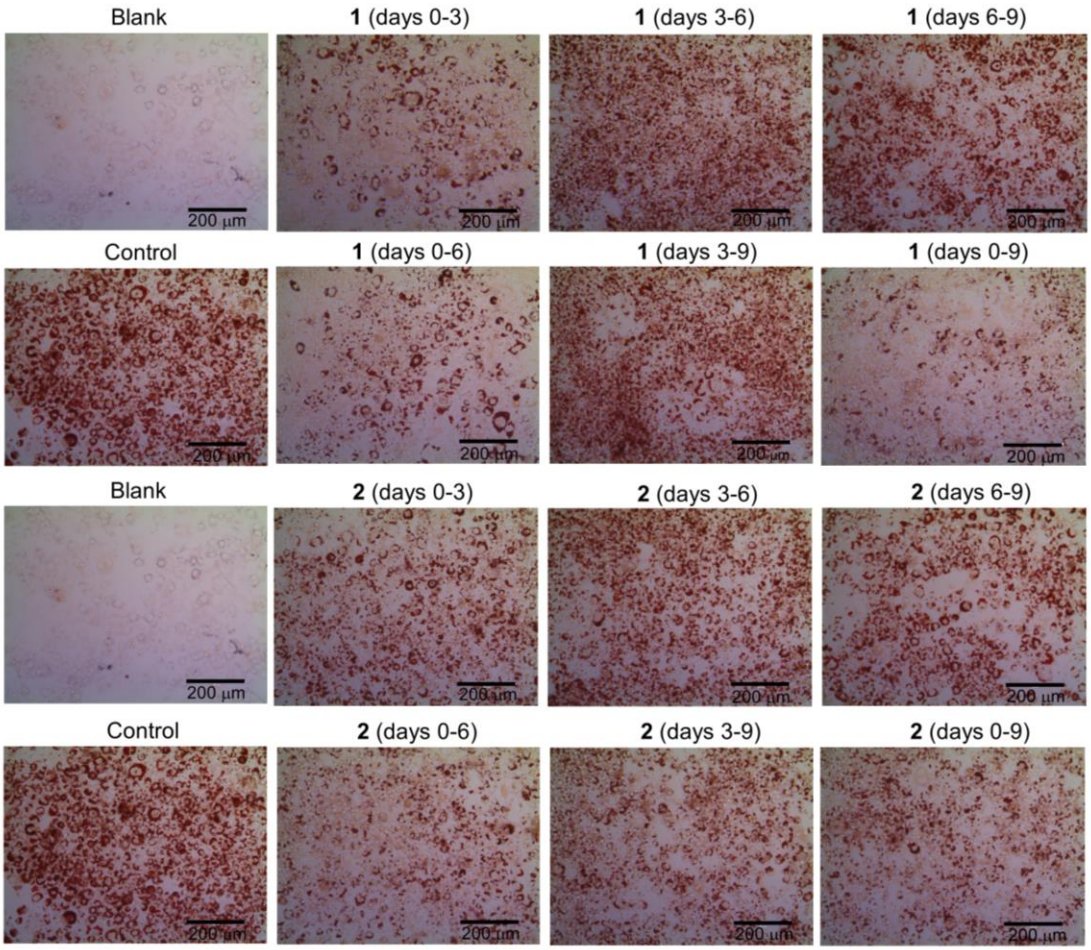


Fig. S3. Images of Oil Red O staining (×200) in 3T3-L1 cells under the treatments of **1** and **2** (20 μM) within indicated time spans. Blank, undifferentiated cells; Control, differentiated cells without compounds treatment.

Table S1. ^{1}H NMR and ^{13}C NMR Spectroscopic Data of **1a** and **1b** (J in Hz, δ in ppm)

1a[a]			**1b**[b]		
No.	δ_H (mult, J, Hz)	δ_C	No.	δ_H (mult, J, Hz)	δ_C
1	5.21, s	127.9	1	5.60, s	131.2
2		141.4	2		139.9
3	3.58, d (7.0)	80.0	3	5.40, s	83.1
4		82.0	4		83.2
5	3.82, s	71.9	5	6.09, s	73.9
6		140.8	6		132.9
7	5.58, s	128.9	7	6.19, s	140.0
8	3.25, dd (12.1, 1.1)	34.5	8	3.57, br d (11.3)	36.0
9		214.8	9		216.1
10		72.9	10		72.6
11	3.26, m	38.3	11	3.16, m	41.3
12a	1.56, ddd (14.4, 10.5, 6.5)	30.0	12a	1.88, ddd (14.6, 6.9, 2.3)	30.7
12b	1.78, ddd (14.4, 7.8, 3.0)		12b	1.80, ddd (14.6, 11.8, 9.2)	
13	0.53, td (8.9, 3.0)	20.3	13	0.71, td (9.2, 2.3)	20.8
14	0.62, dd (12.2, 8.9)	29.2	14	0.78, m	30.0
15		18.6	15		19.6
16	1.01, s	28.5	16	1.09, s	28.8
17	0.98, s	15.0	17	1.03, s	14.8
18	0.89, d (6.2)	17.0	18	0.99, d (6.2)	16.4
19	1.66, s	14.3	19	1.65, s	14.3
20	3.91, m	62.8	20	5.10, s	66.3
3-OH	5.46, d (7.0)		1′		165.7
4-OH	3.99, s		2′		128.6
5-OH	4.76, d (2.5)		3′, 7′	7.93, d (8.5)	131.4
20-OH	4.80, t (5.4)		4′, 6′	7.59, d (8.5)	131.8
			5′		128.3
			1″		165.7
			2″		128.8
			3″, 7″	7.78, d (8.5)	130.8
			4″, 6″	7.56, d (8.5)	131.7
			5″		128.1
			1‴		165.3
			2‴		128.7
			3‴, 7‴	7.95, d (8.5)	131.3
			4‴, 6‴	7.52, d (8.5)	131.8
			5‴		128.4
			4-OH	2.76, s	

[a] ^{1}H and ^{13}C NMR were measured in DMSO-d_6 at 500 and 125 MHz, respectively. [b] ^{1}H and ^{13}C NMR were measured in $CDCl_3$ at 400 and 100 MHz, respectively.

NMR, HRESIMS, and IR spectra of 1, 2, 1a, and 1b.

Fig. S4. ^{1}H NMR spectrum of **1** in $CDCl_3$ (500 MHz).

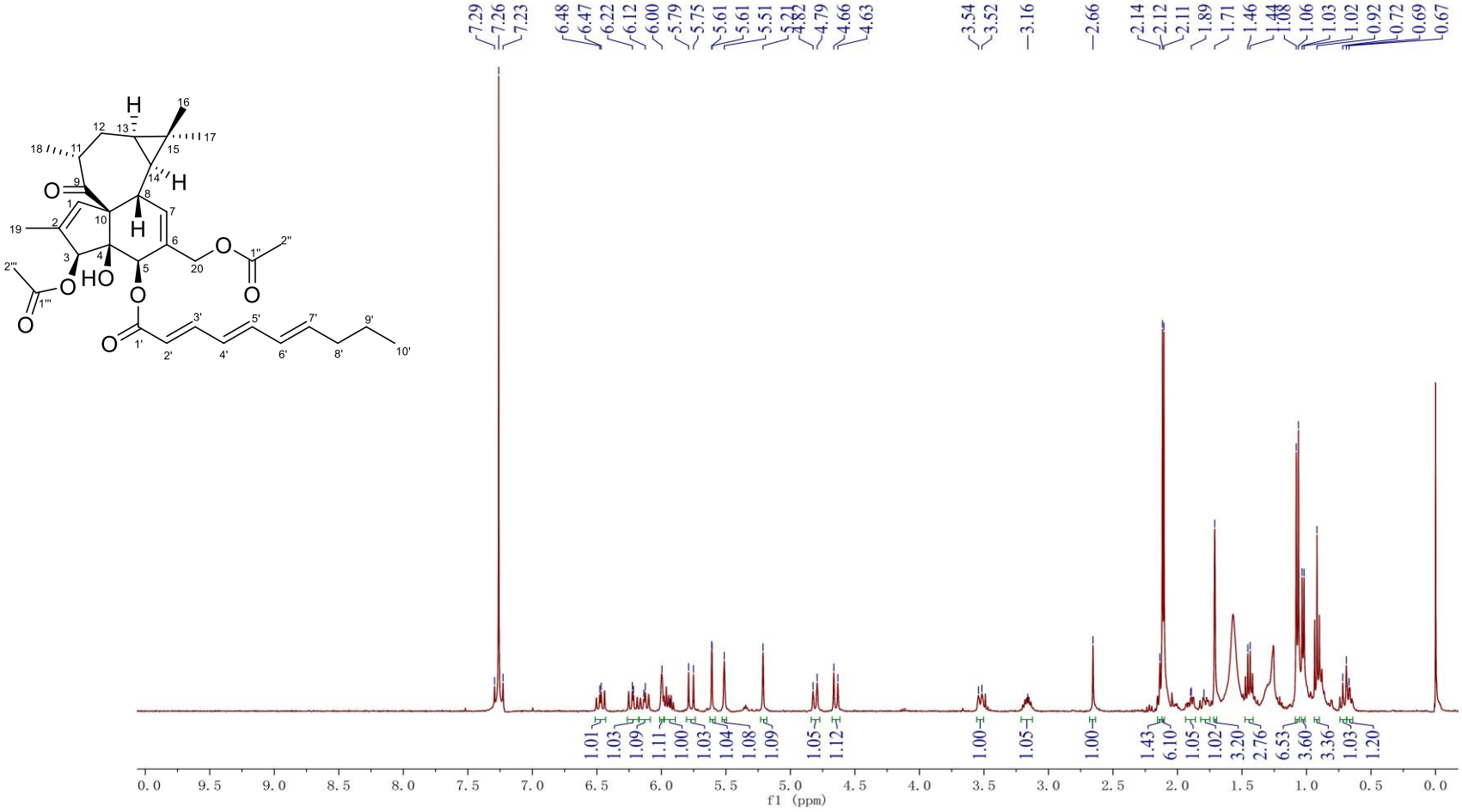


Fig. S5. Enlarged ^{1}H NMR spectrum of **1** in 0–4.5 ppm.

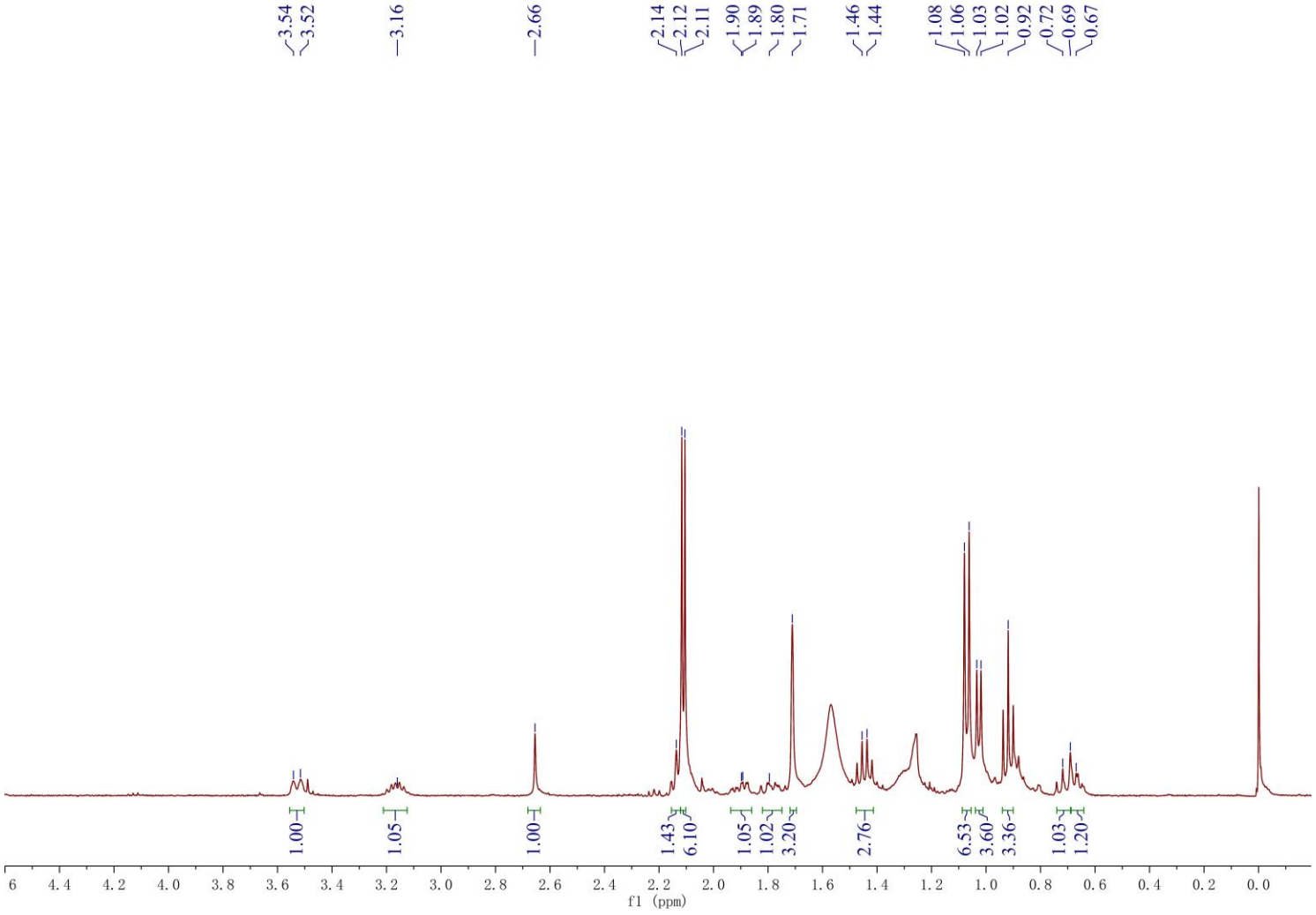


Fig. S6. Enlarged ^{1}H NMR spectrum of **1** in 4.5−7.5 ppm.

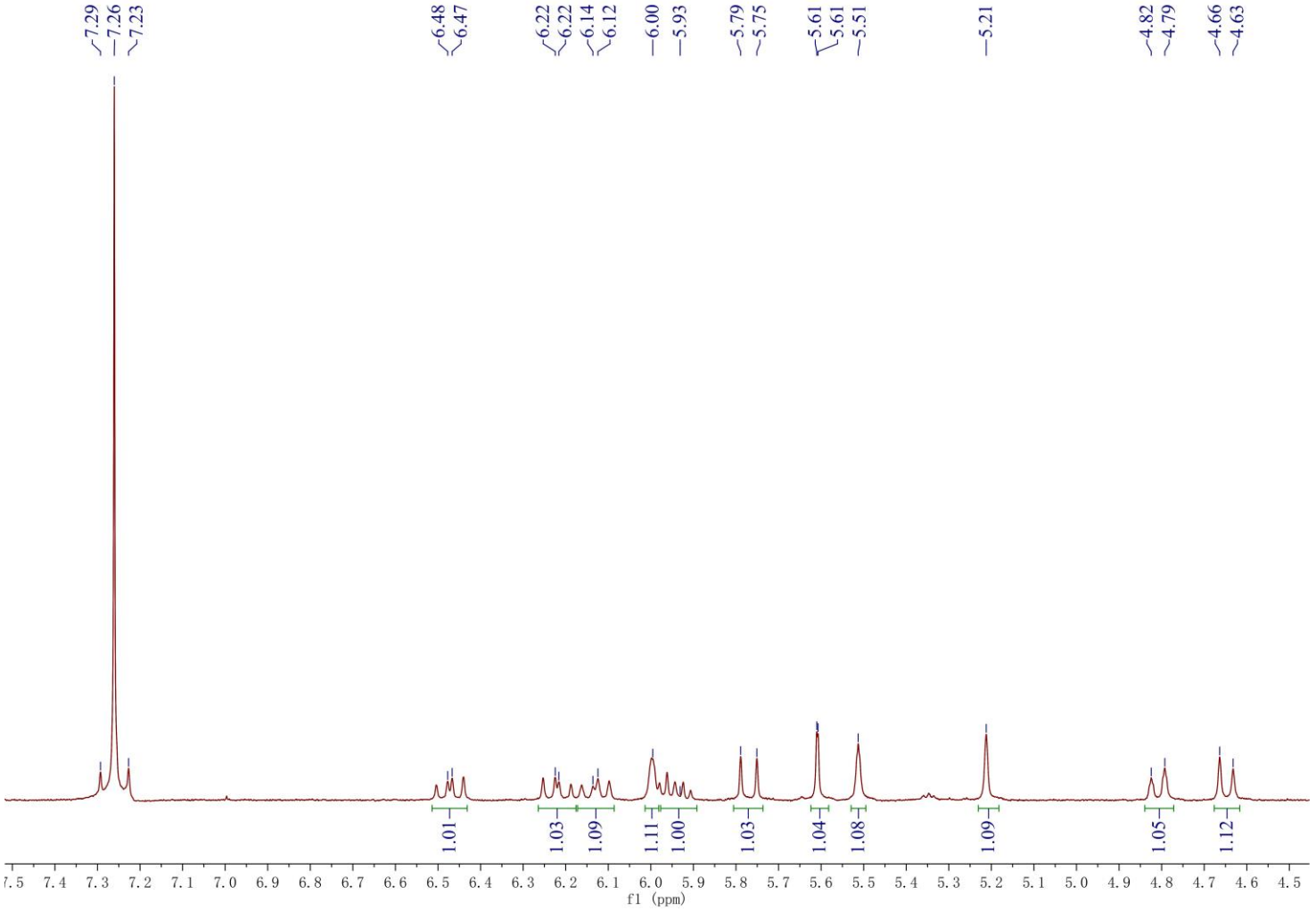


Fig. S7. ^{13}C NMR and DEPT spectra of **1** in $CDCl_3$ (125 MHz).

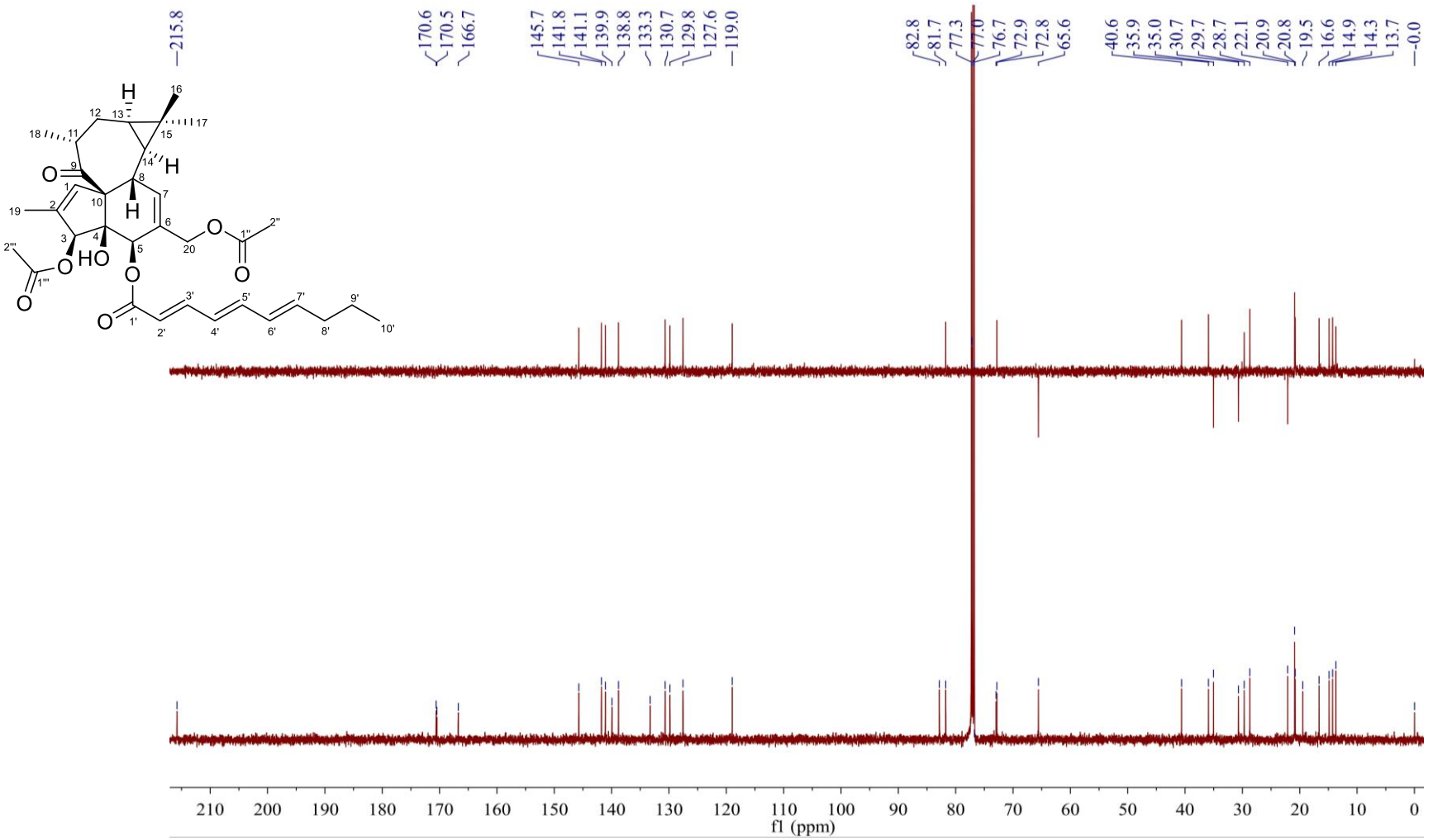


Fig. S8. HSQC spectrum of **1** in $CDCl_3$ (500 MHz).

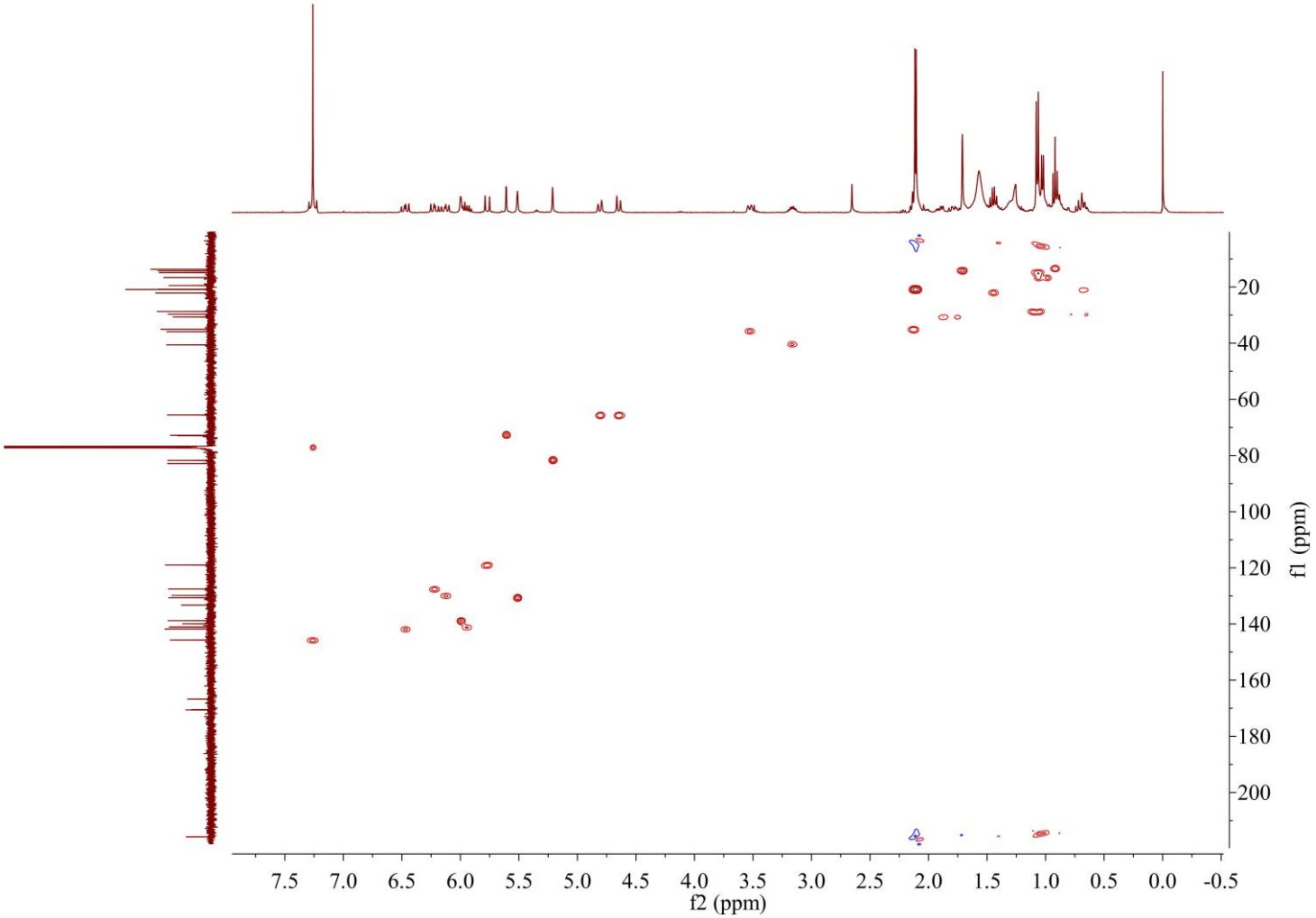


Fig. S9. HMBC spectrum of **1** in $CDCl_3$ (500 MHz).

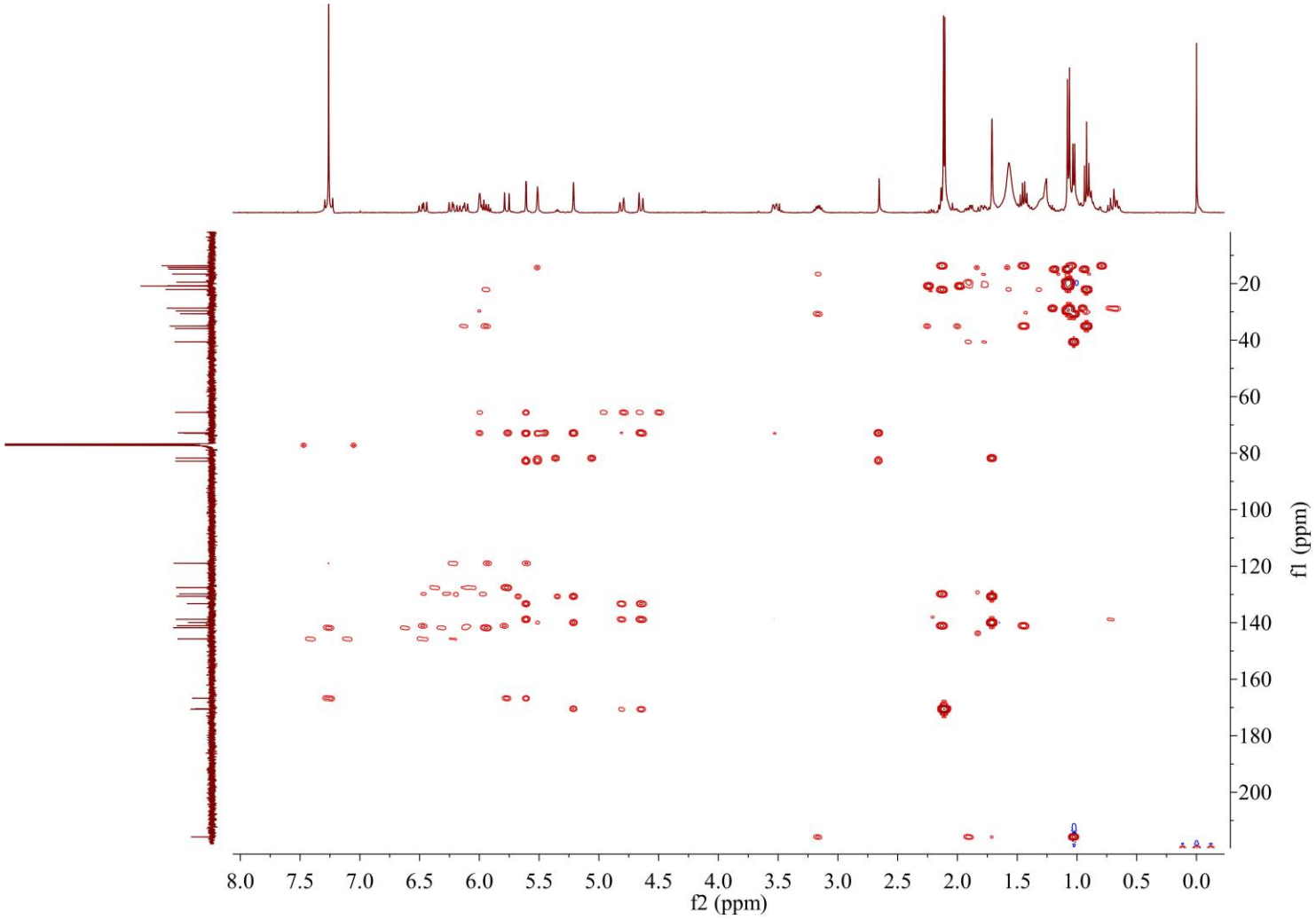


Fig. S10. $^{1}H–^{1}H$ COSY spectrum of **1** in $CDCl_3$ (500 MHz).

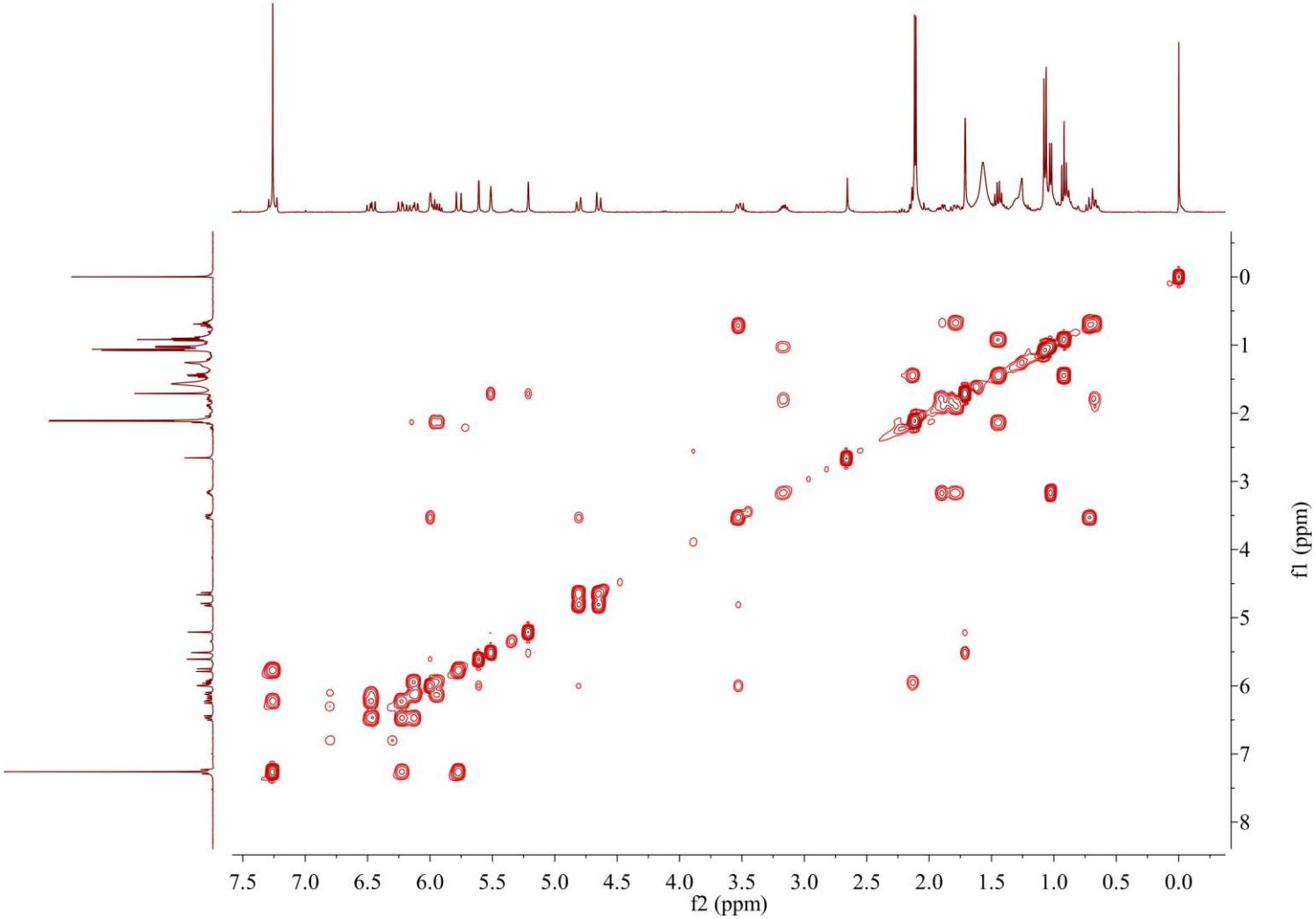


Fig. S11. NOESY spectrum of **1** in $CDCl_3$ (500 MHz).

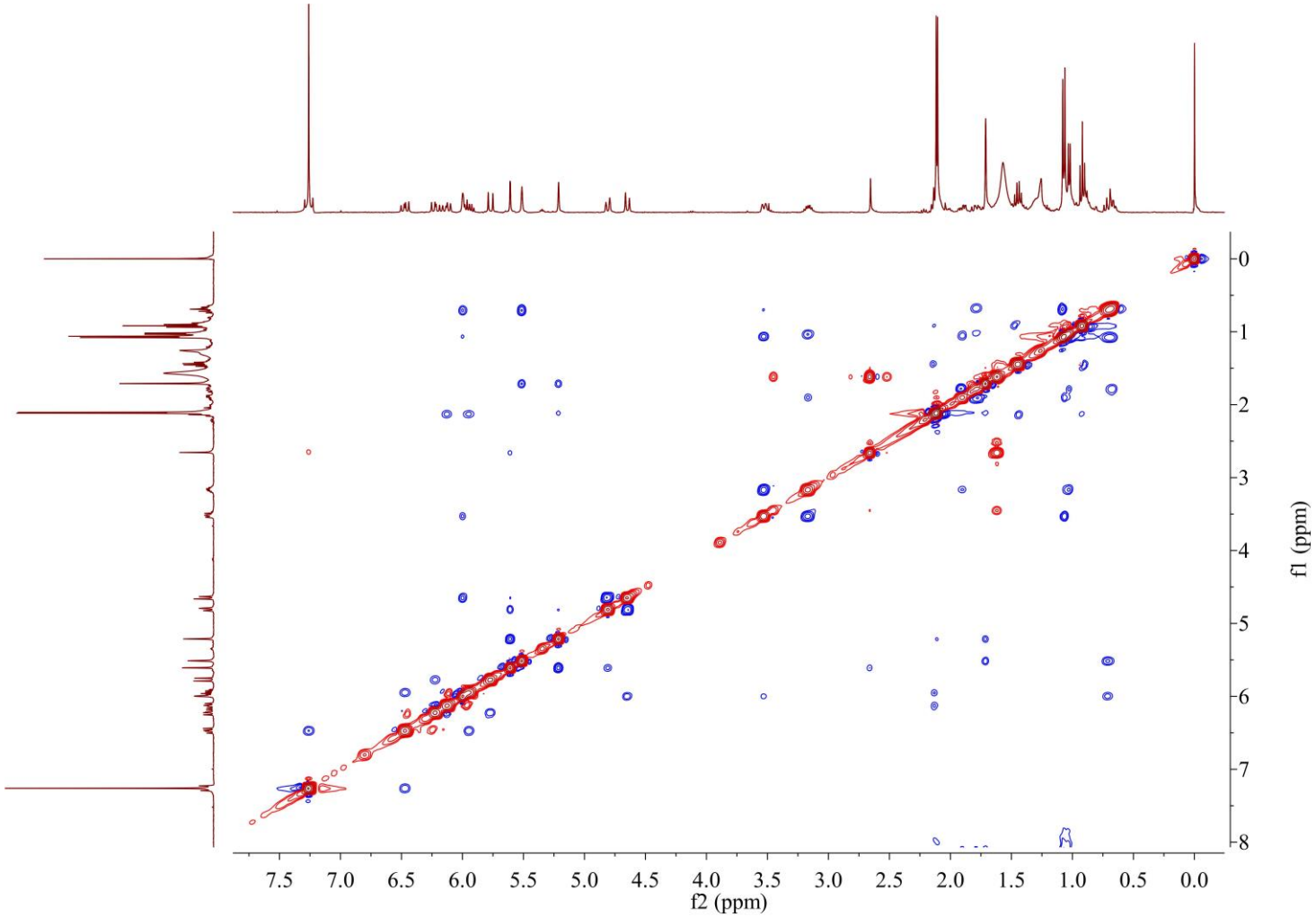
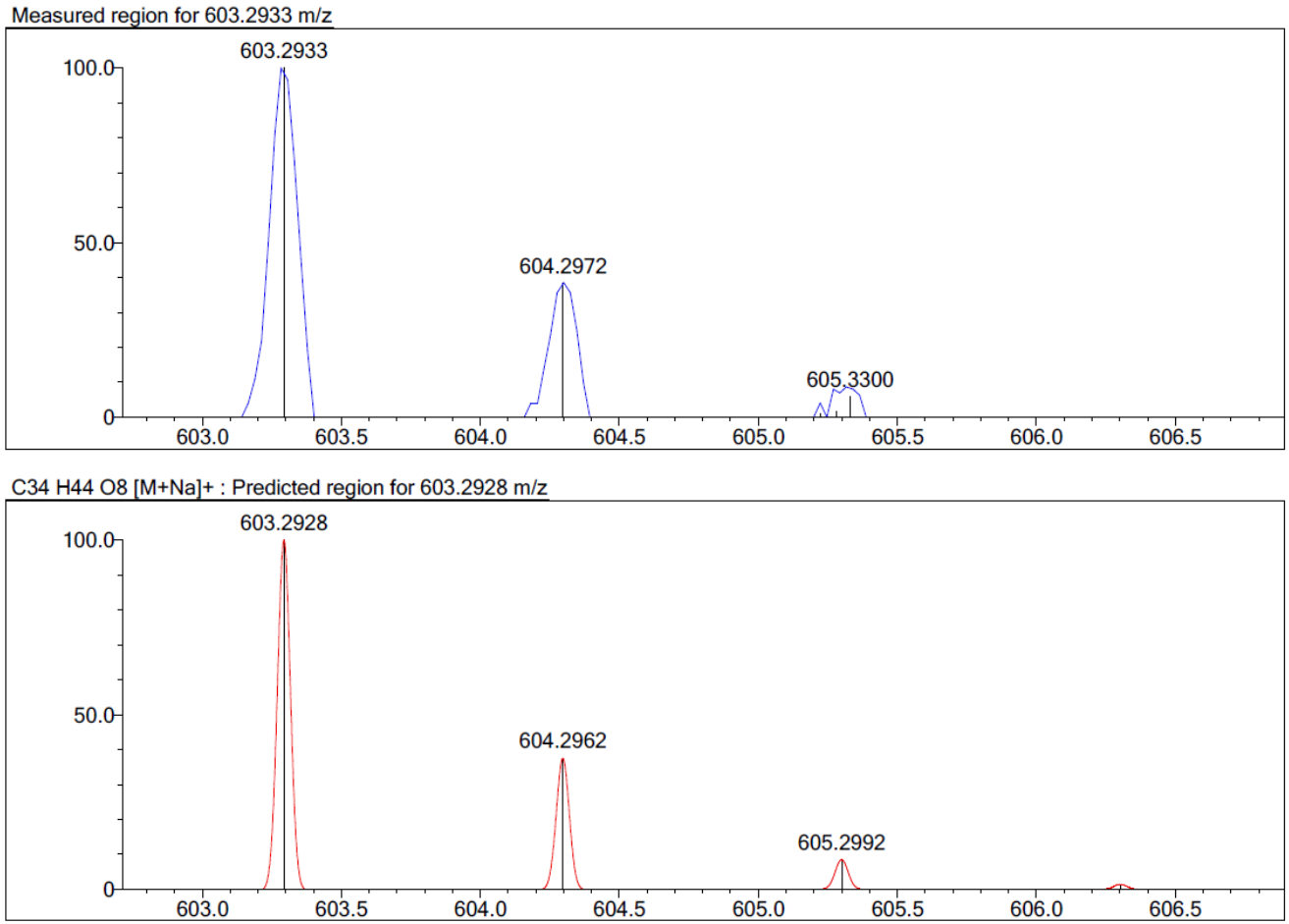


Fig. S12. HRESIMS spectrum of **1**.



Rank	Score	Formula (M)	Ion	Meas. m/z	Pred. m/z	Df. (mDa)	Df. (ppm)	Iso	DBE
1	80.60	C34 H44 O8	[M+Na]+	603.2933	603.2928	0.5	0.83	80.60	13.0

Fig. S13. IR (KBr disc) spectrum of **1**.

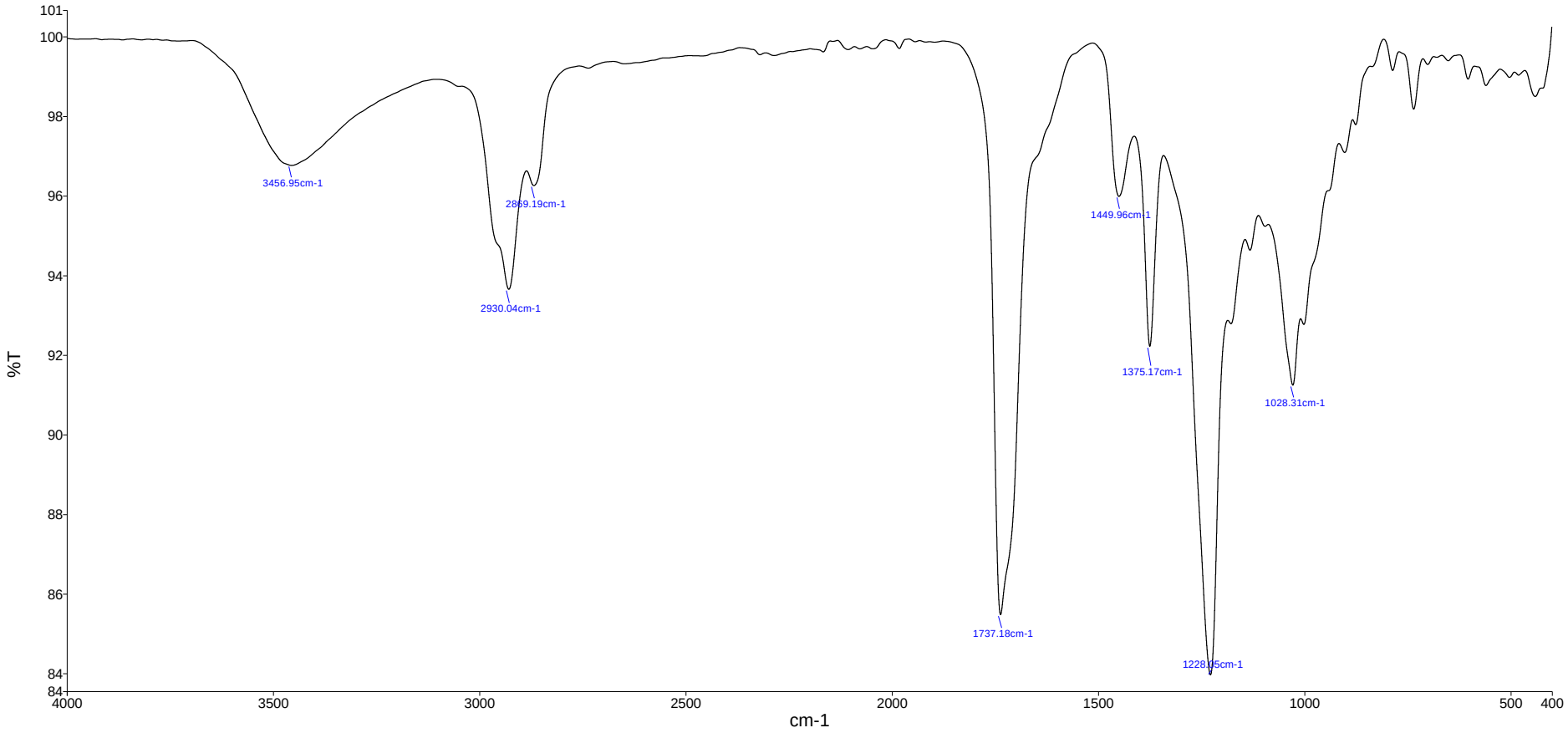


Fig. S14. ^{1}H NMR spectrum of **2** in $CDCl_3$ (400 MHz).

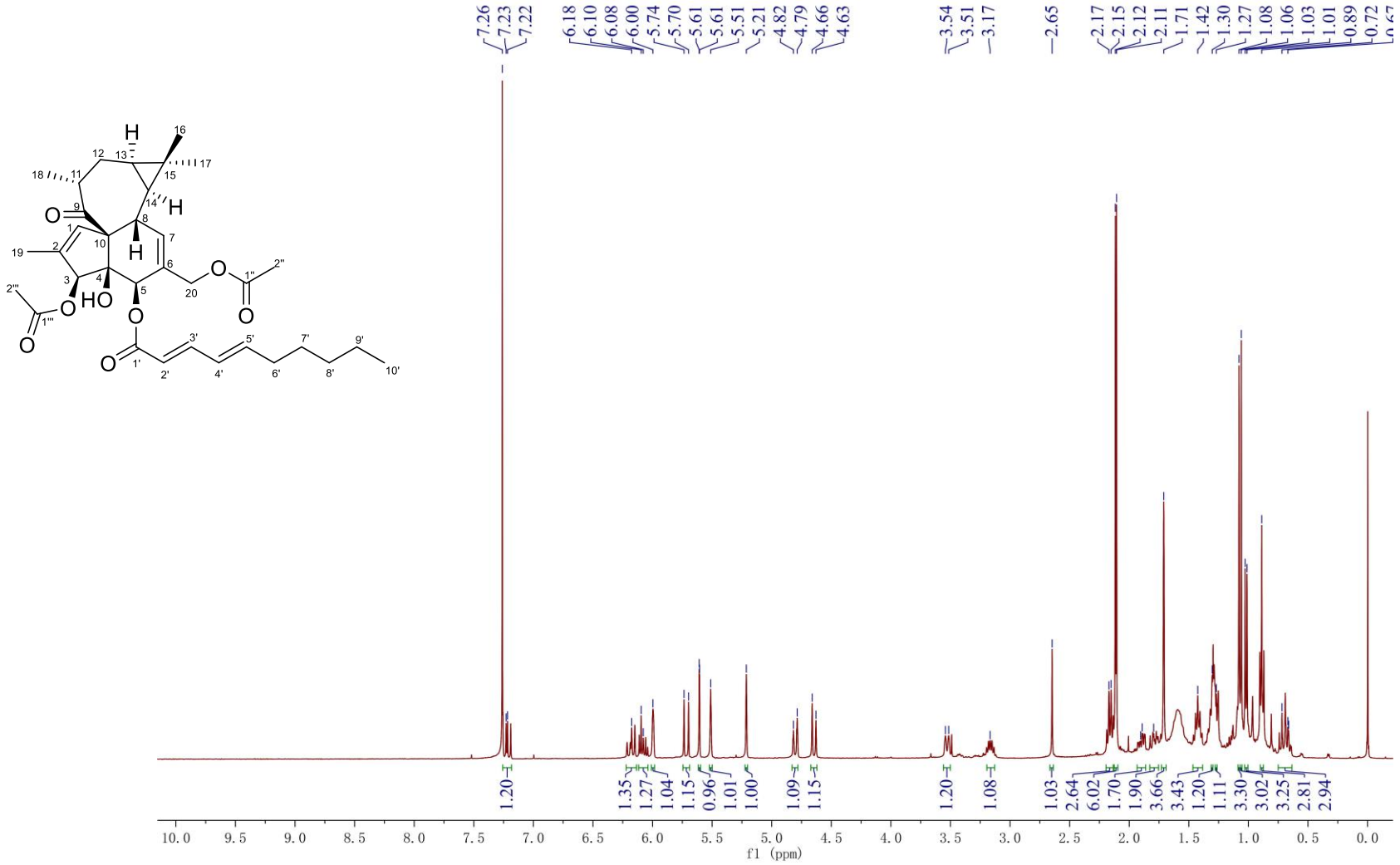


Fig. S15. Enlarged ^{1}H NMR spectrum of **2** in 0–4.5 ppm.

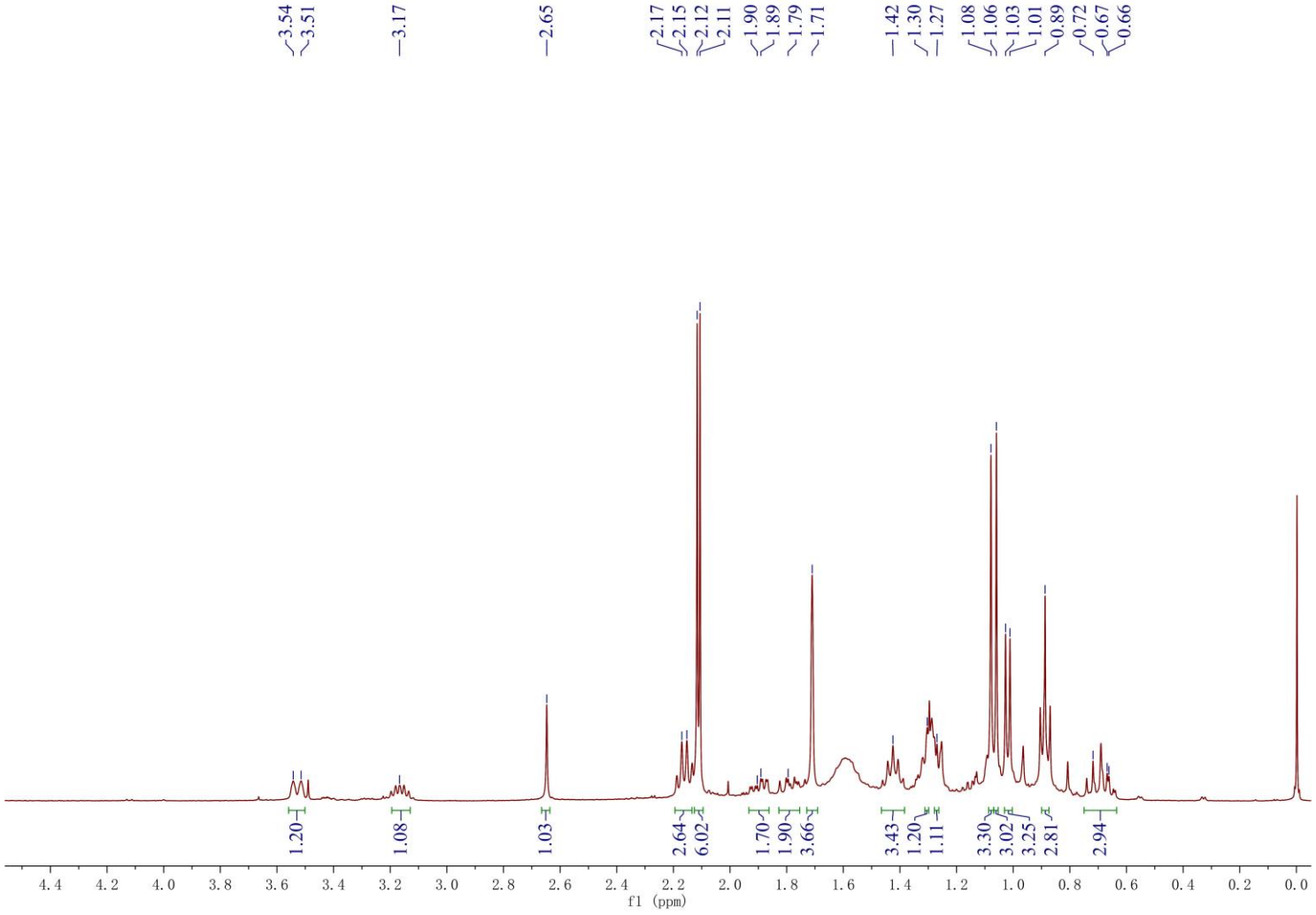


Fig. S16. Enlarged ^{1}H NMR spectrum of **2** in 4.5−7.5 ppm.

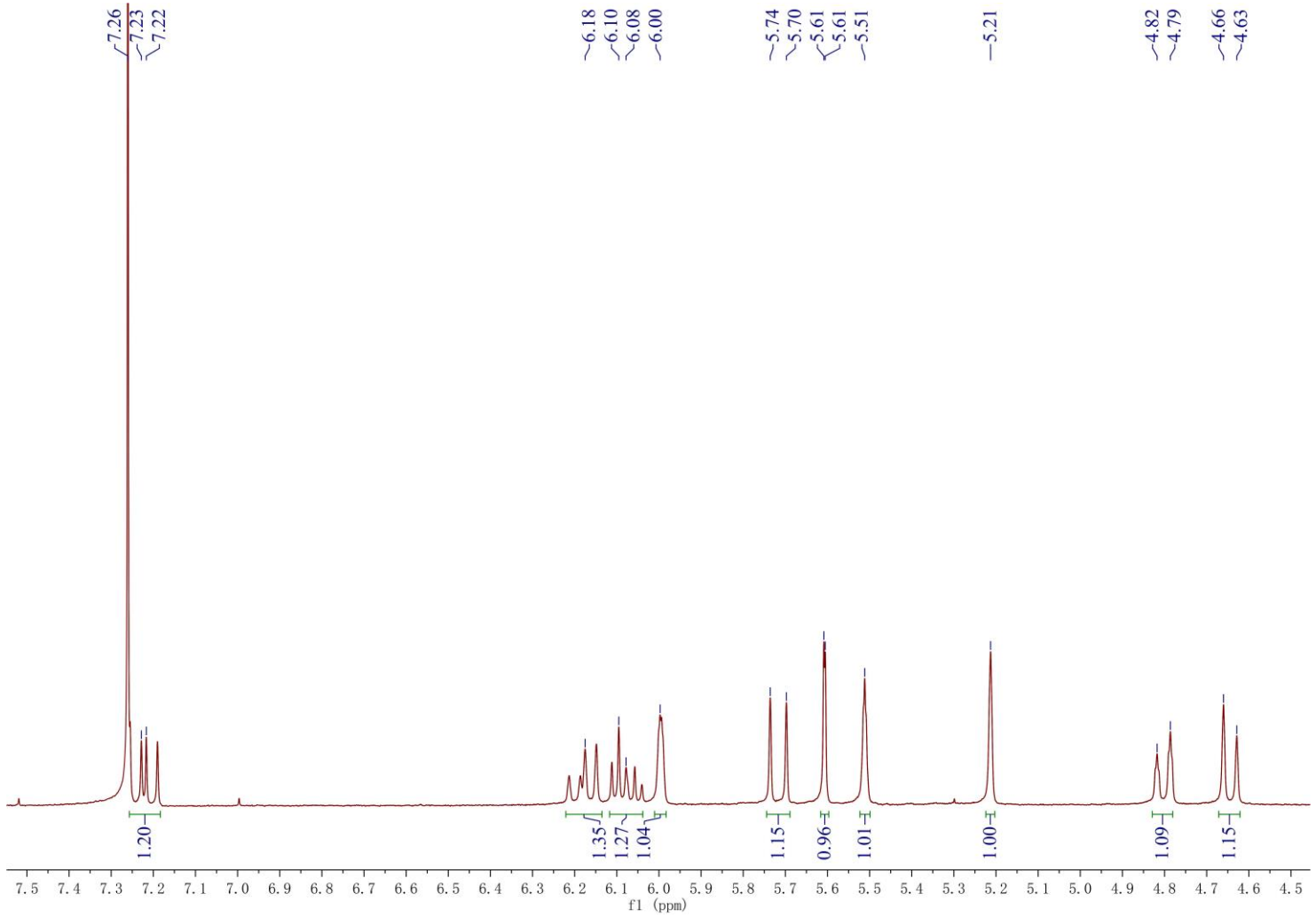


Fig. S17. ^{13}C NMR and DEPT spectra of **2** in $CDCl_3$ (100 MHz).

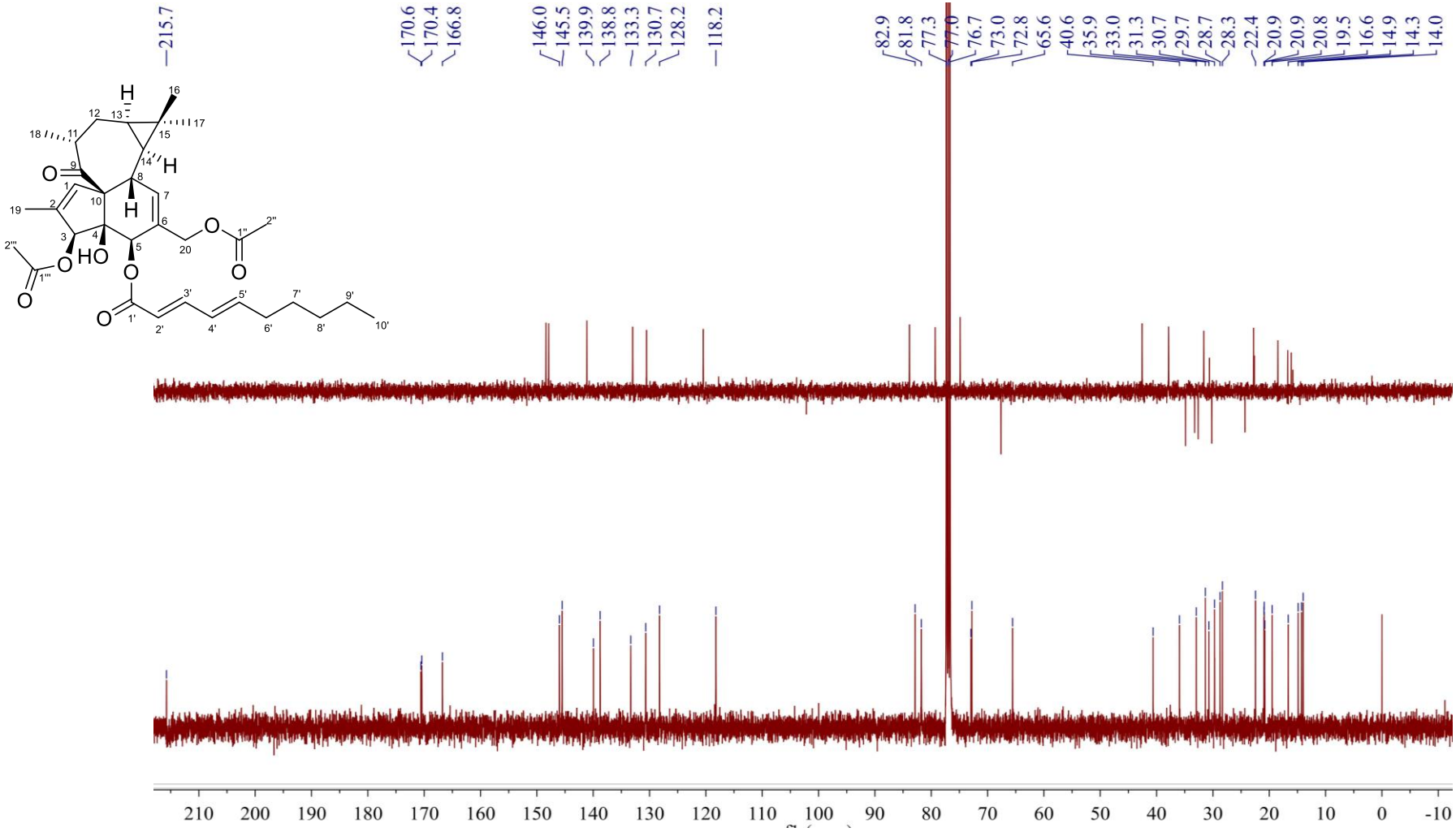


Fig. S18. HSQC spectrum of **2** in $CDCl_3$ (400 MHz).

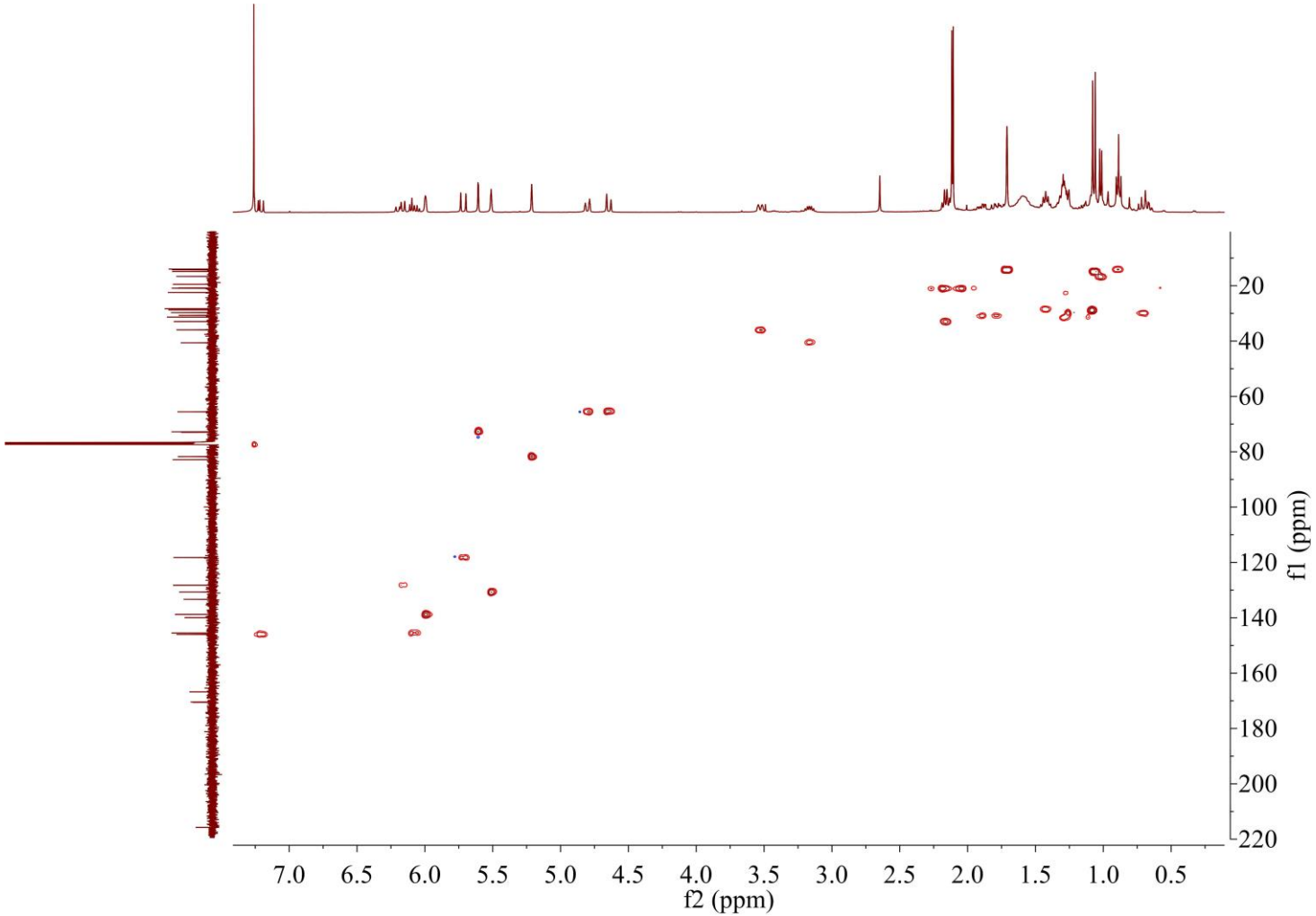


Fig. S19. HMBC spectrum of **2** in $CDCl_3$ (400 MHz).

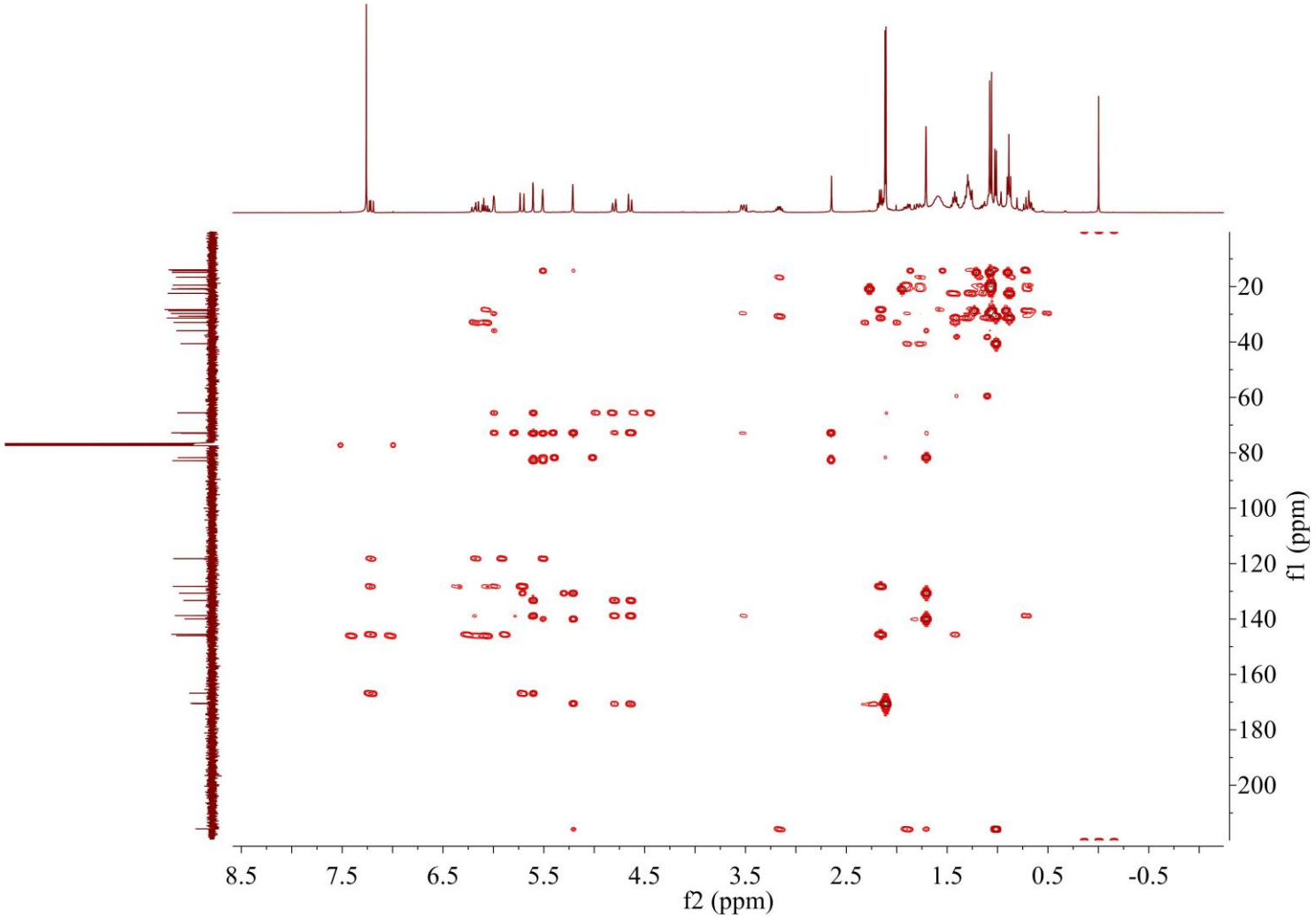


Fig. S20. $^{1}H–^{1}H$ COSY spectrum of **2** in $CDCl_3$ (400 MHz).

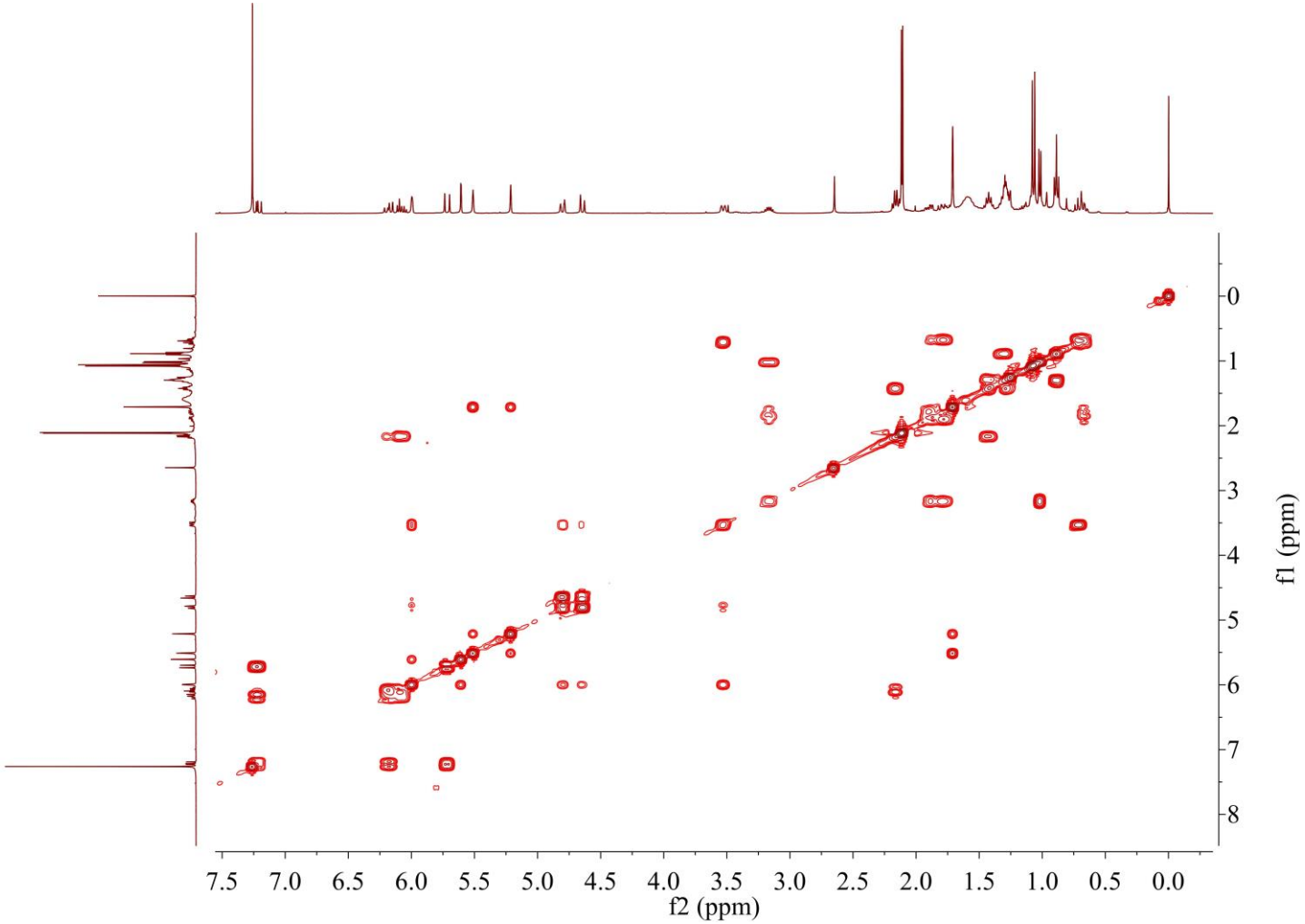


Fig. S21. NOESY spectrum of **2** in $CDCl_3$ (400 MHz).

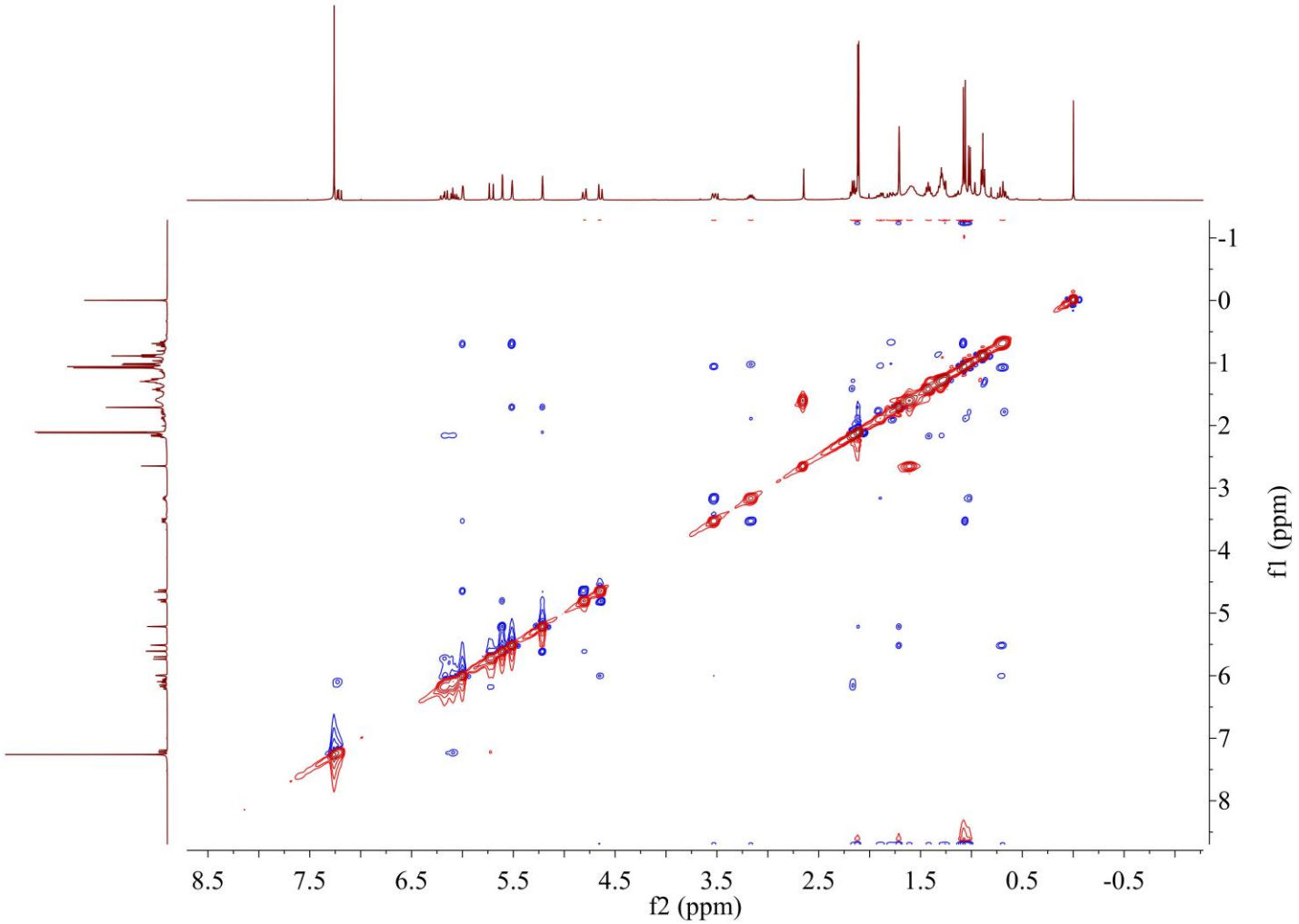
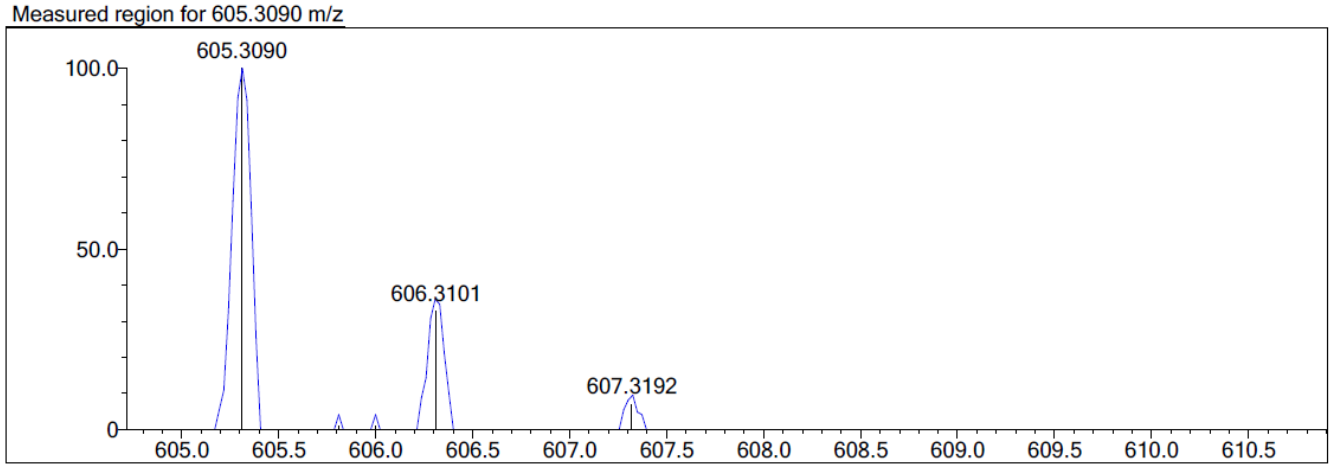
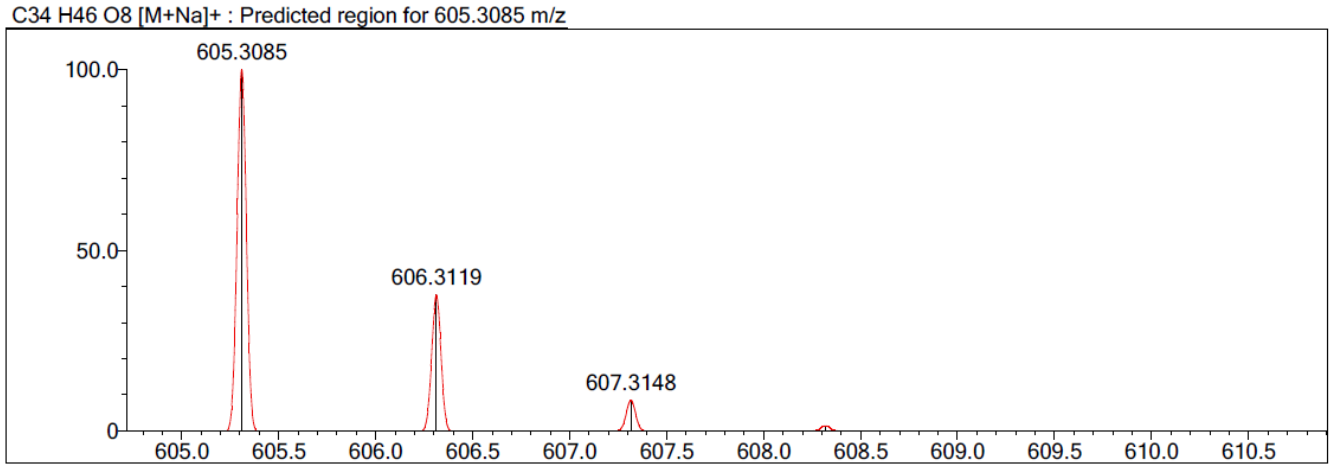


Fig. S22. HRESIMS spectrum of **2**.





Rank	Score	Formula (M)	Ion	Meas. m/z	Pred. m/z	Df. (mDa)	Df. (ppm)	Iso	DBE
1	96.82	C34 H46 O8	[M+Na]+	605.3090	605.3085	0.5	0.83	96.82	12.0

Fig. S23. IR (KBr disc) spectrum of **2**.

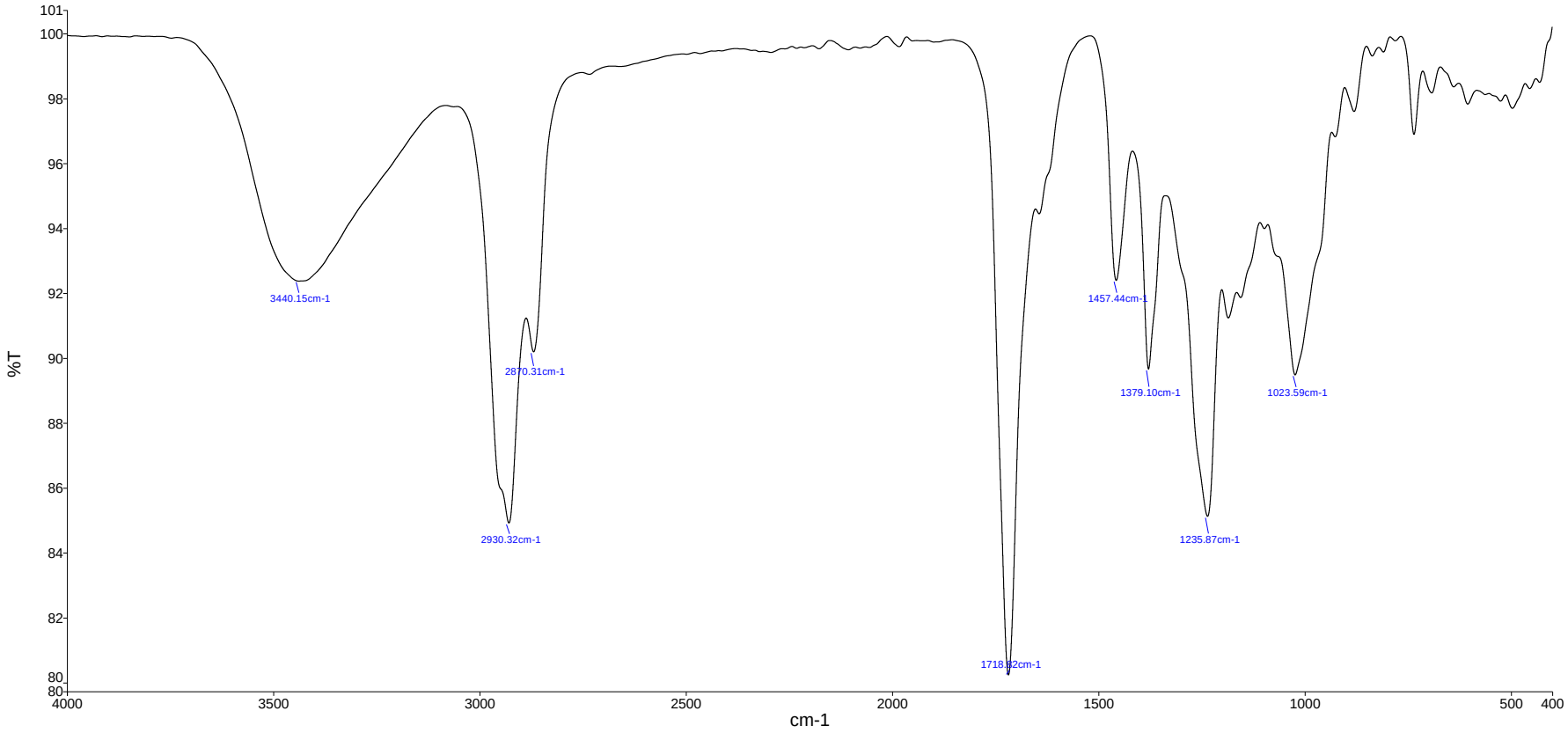


Fig. S24. ^{1}H NMR spectrum of **1a** in DMSO-d_6 (500 MHz).

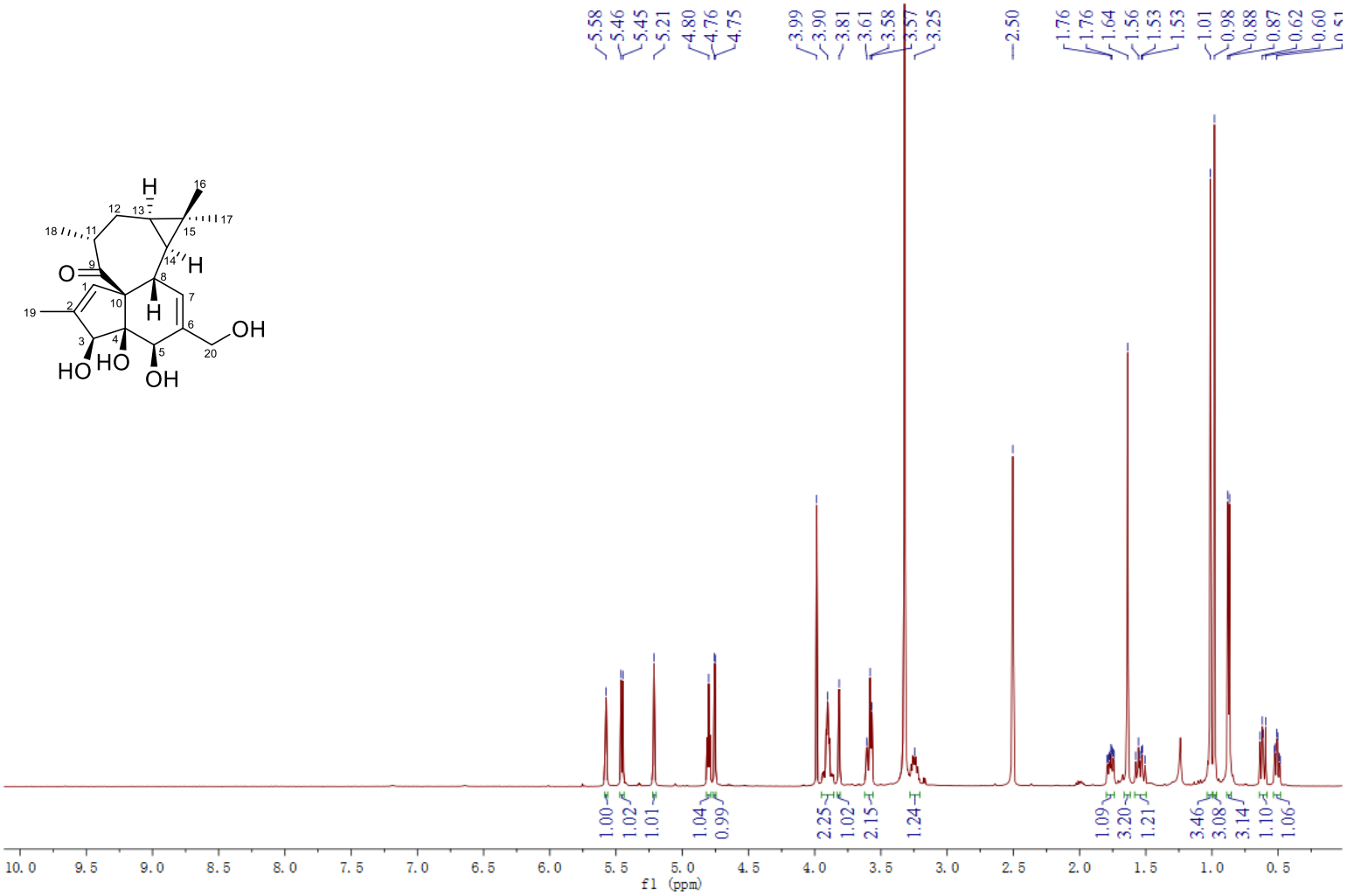


Fig. S25. Enlarged ^{1}H NMR spectrum of **1a** in 0–3 ppm.

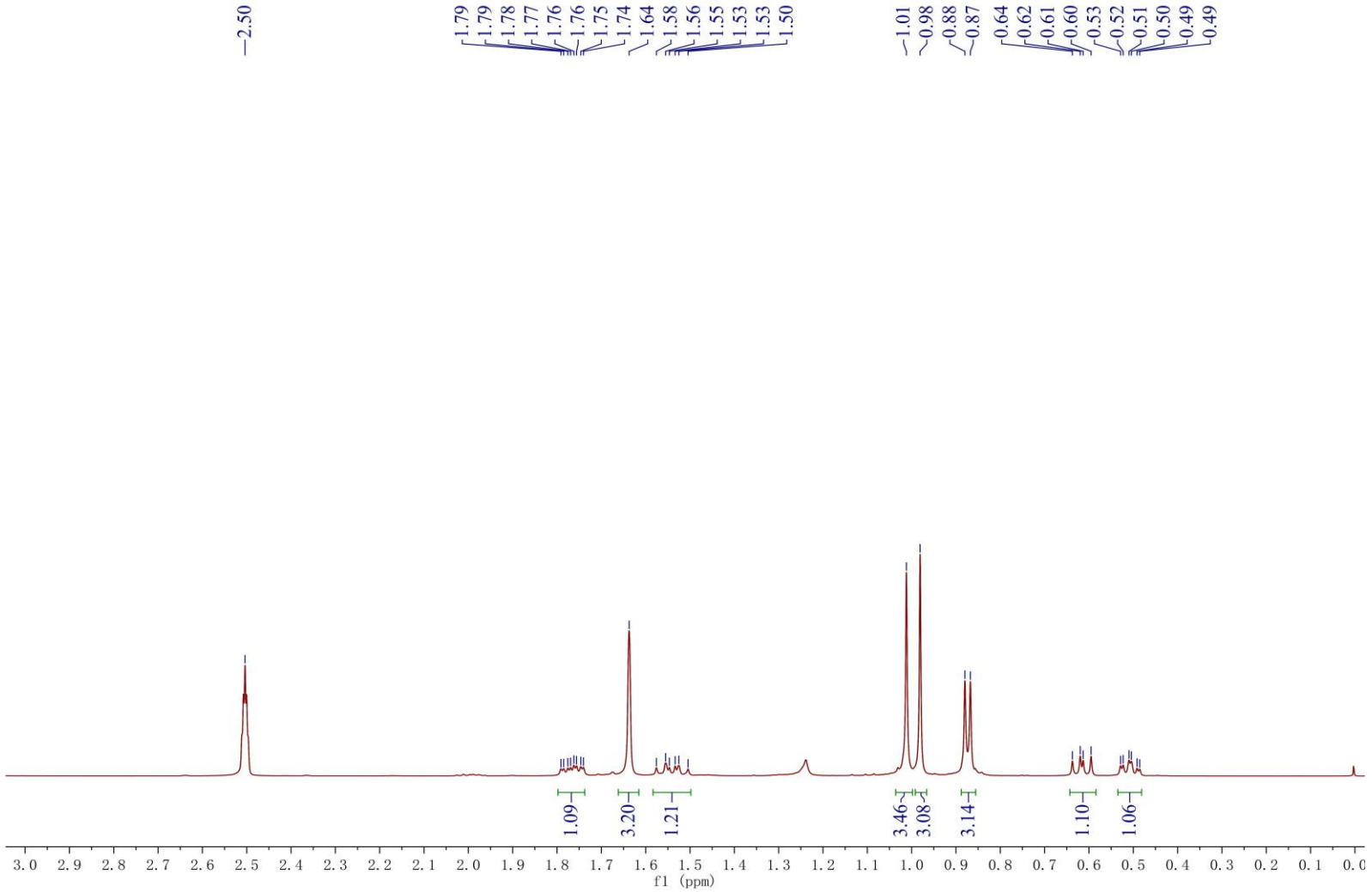


Fig. S26. Enlarged ^{1}H NMR spectrum of **1a** in 3−6 ppm.

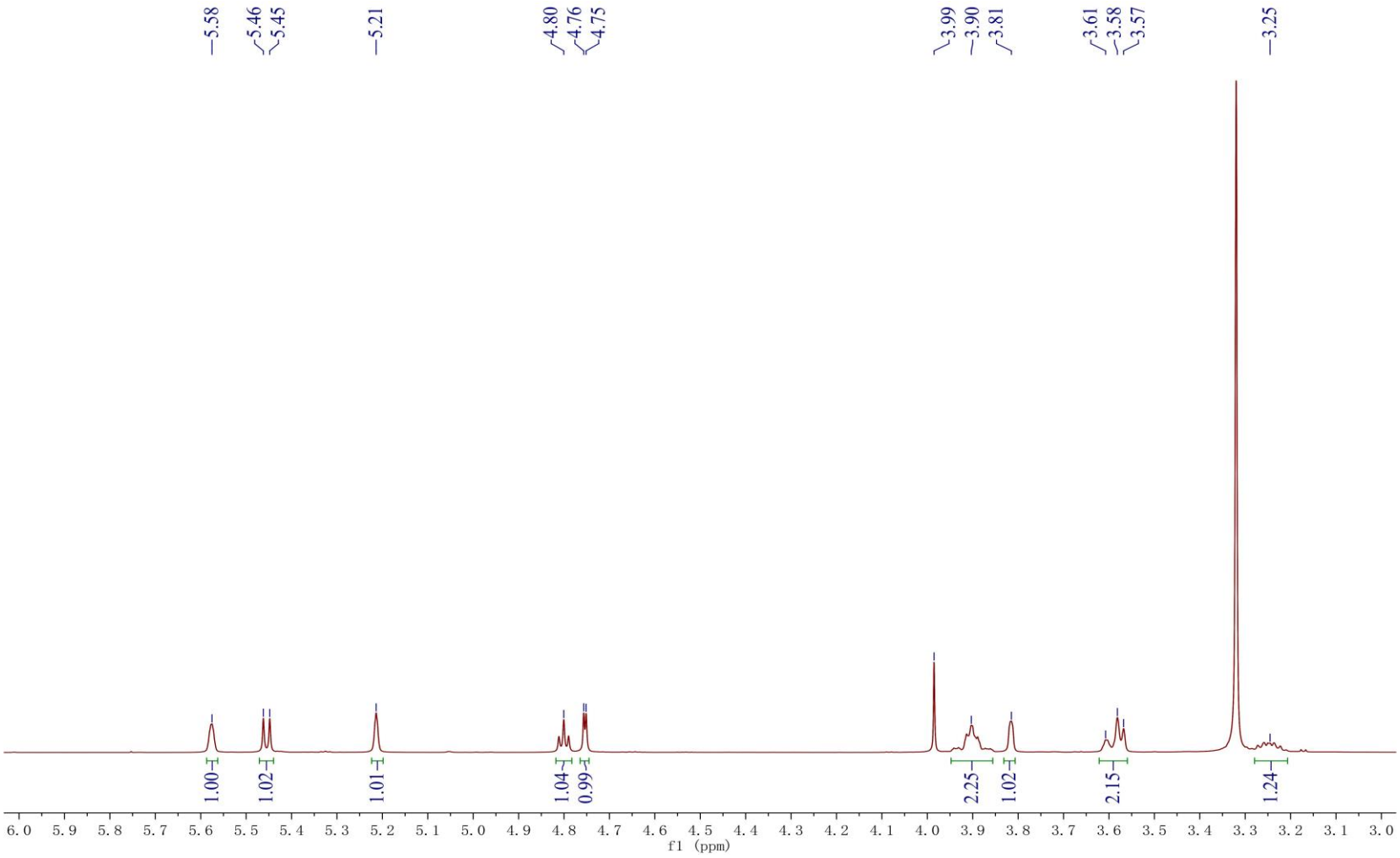


Fig. S27. ^{13}C NMR and DEPT spectra of **1a** in DMSO-d_6 (125 MHz).

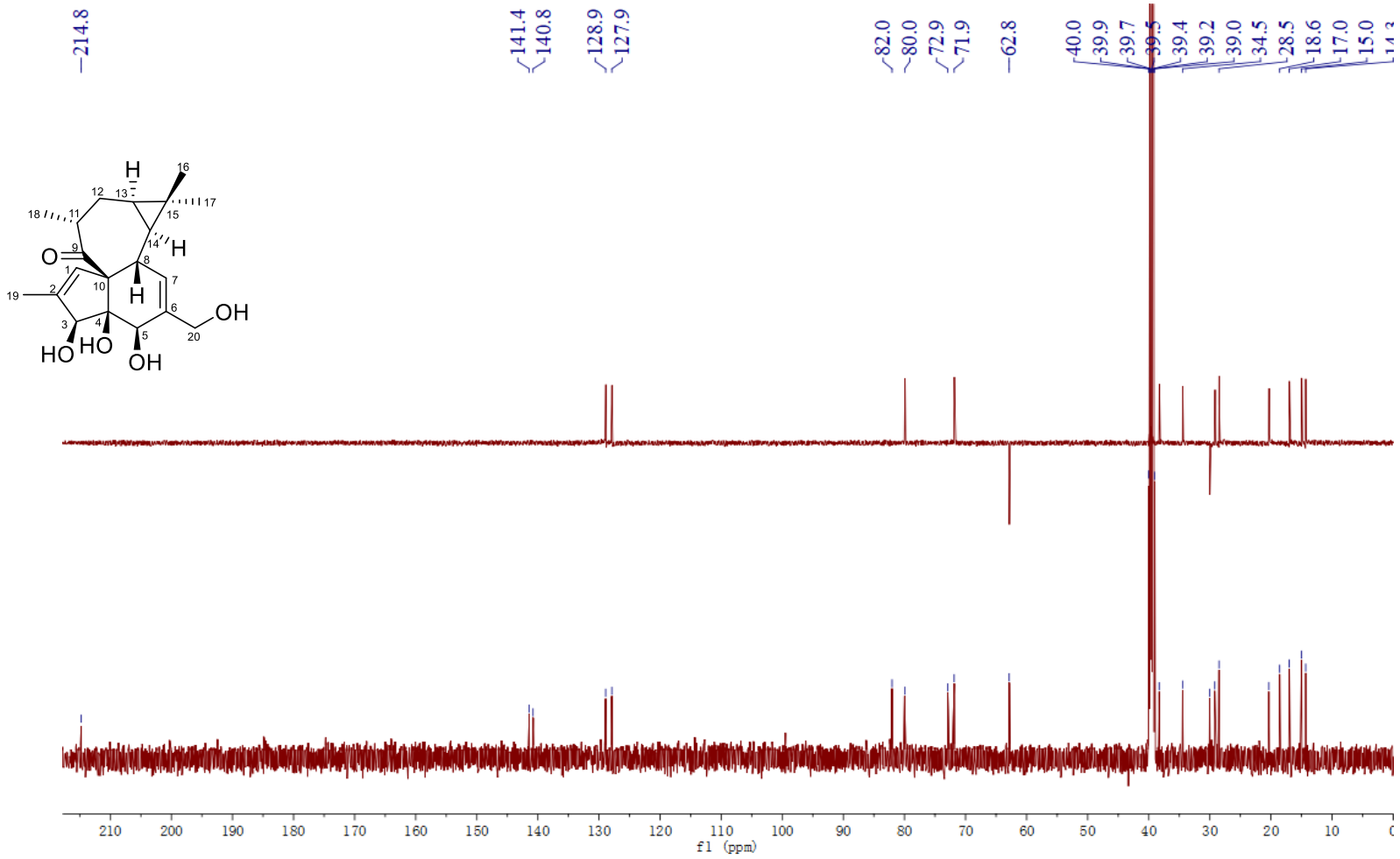


Fig. S28. HSQC spectrum of **1a** in DMSO-d_6 (500 MHz).

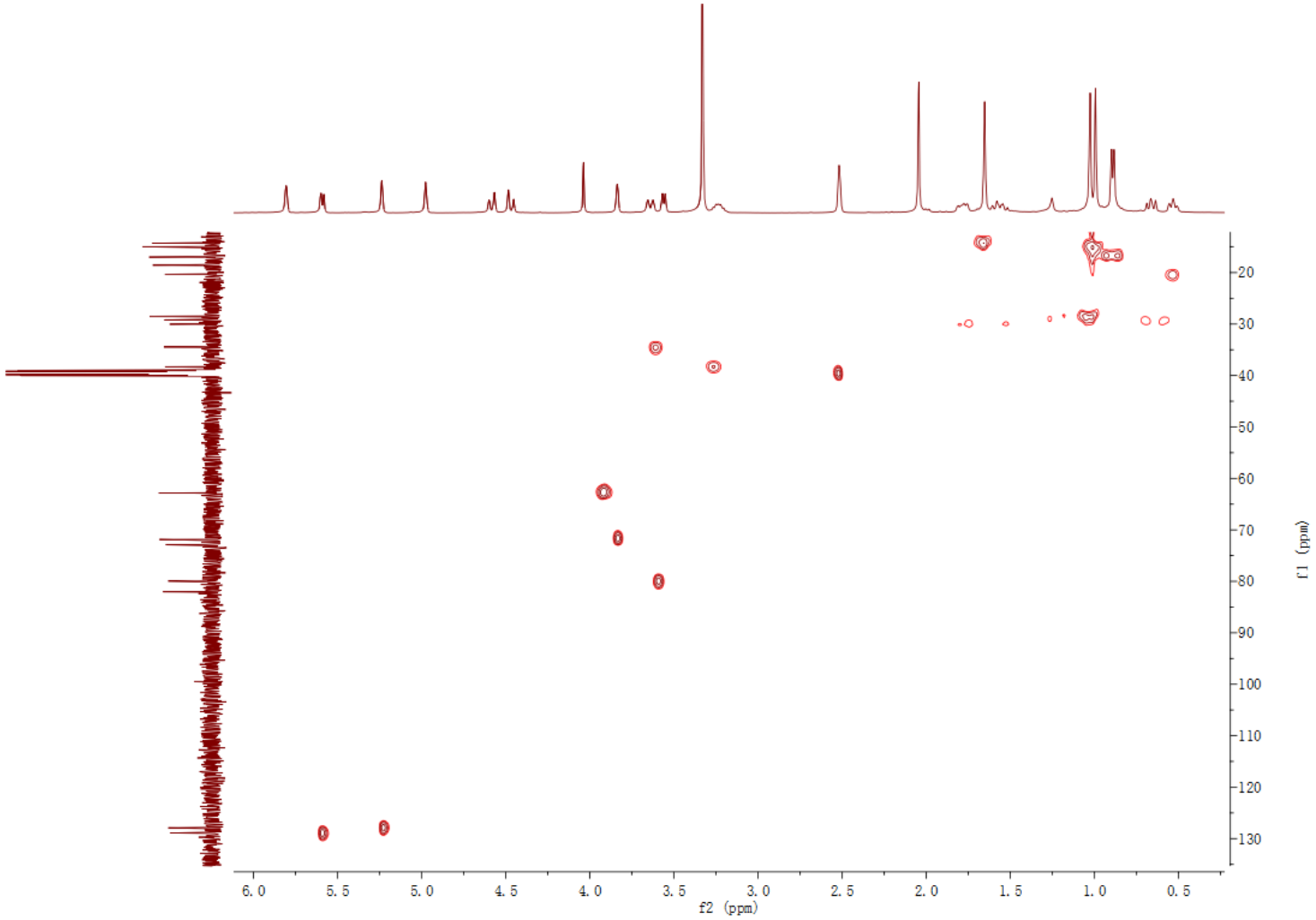


Fig. S29. HMBC spectrum of **1a** in DMSO-d_6 (500 MHz).

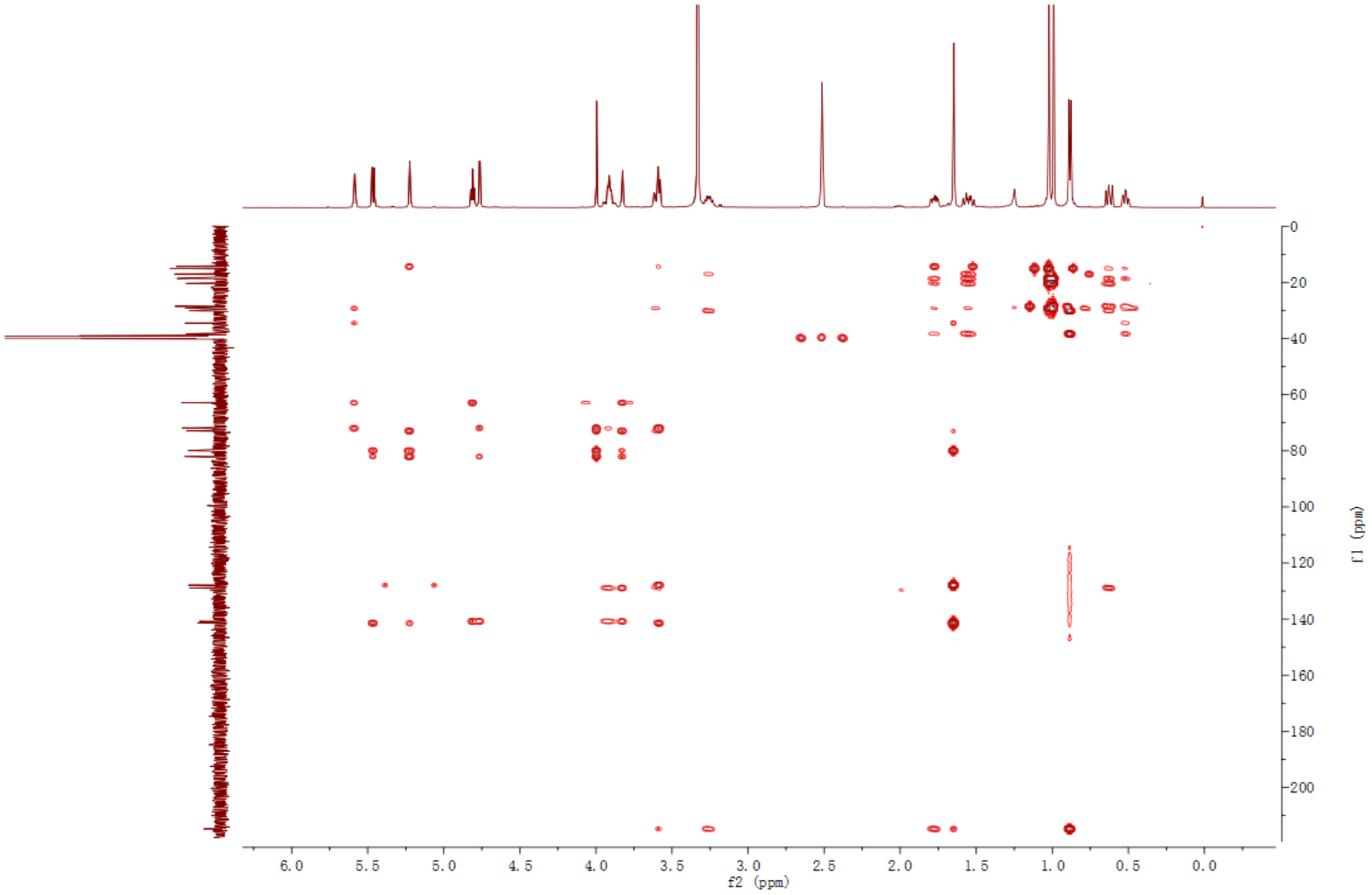


Fig. S30. ^{1}H–^{1}H COSY spectrum of **1a** in DMSO-d_6 (500 MHz).

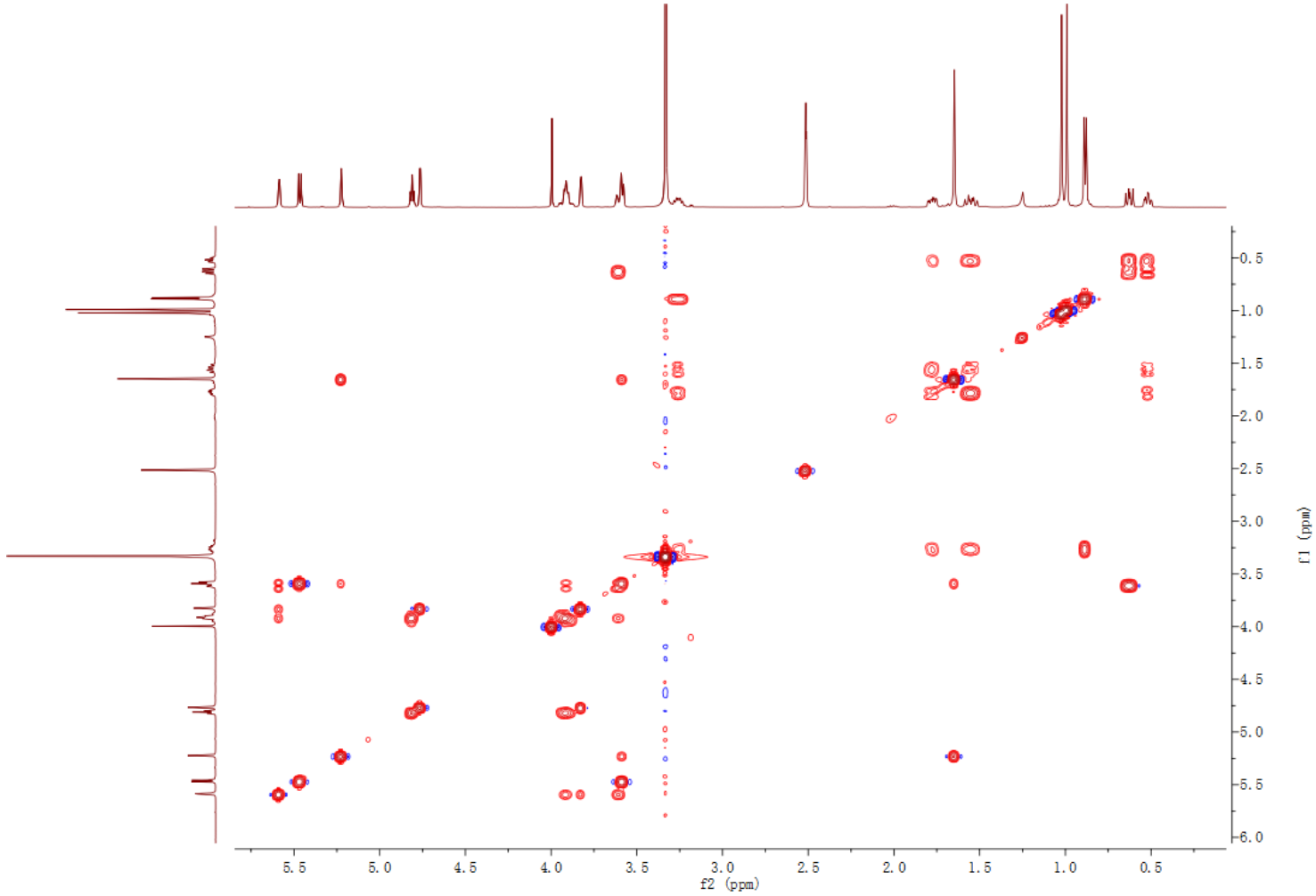


Fig. S31. NOESY spectrum of **1a** in DMSO-d_6 (500 MHz).

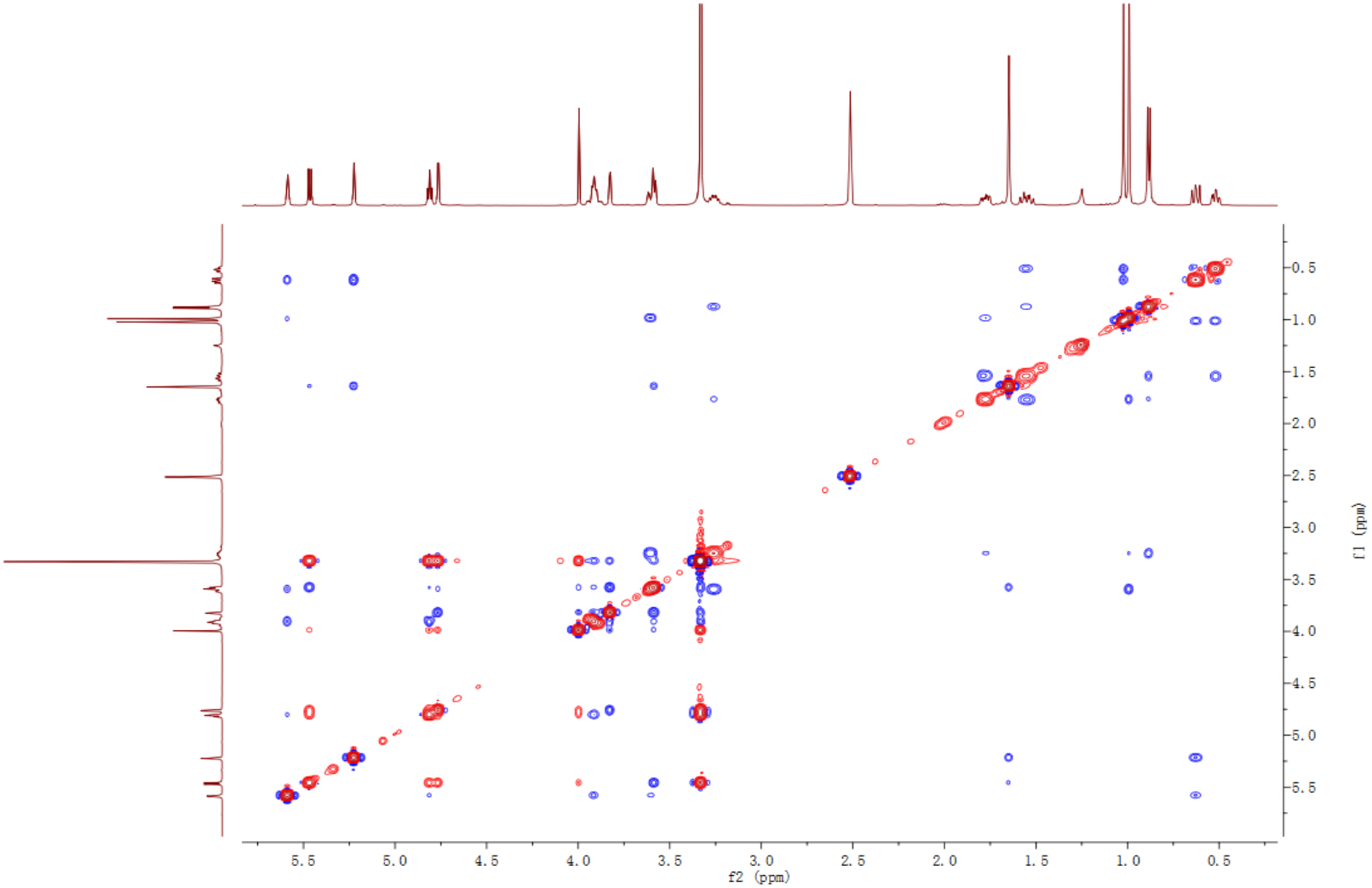
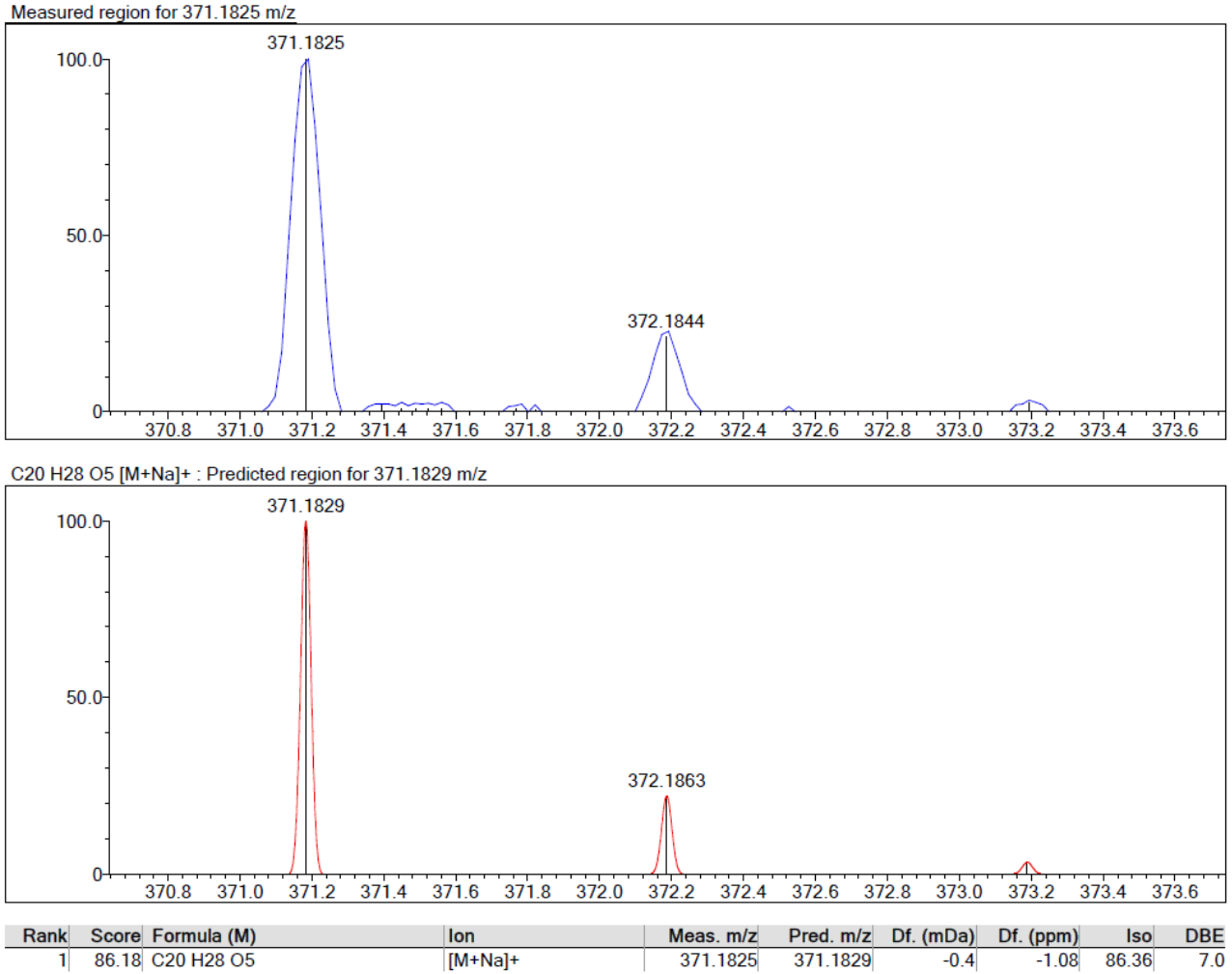


Fig. S32. HRESIMS spectrum of **1a**.



Rank	Score	Formula (M)	Ion	Meas. m/z	Pred. m/z	Df. (mDa)	Df. (ppm)	Iso	DBE
1	86.18	C20 H28 O5	[M+Na]+	371.1825	371.1829	-0.4	-1.08	86.36	7.0

Fig. S33. ^{1}H NMR spectrum of **1b** in $CDCl_3$ (400 MHz).

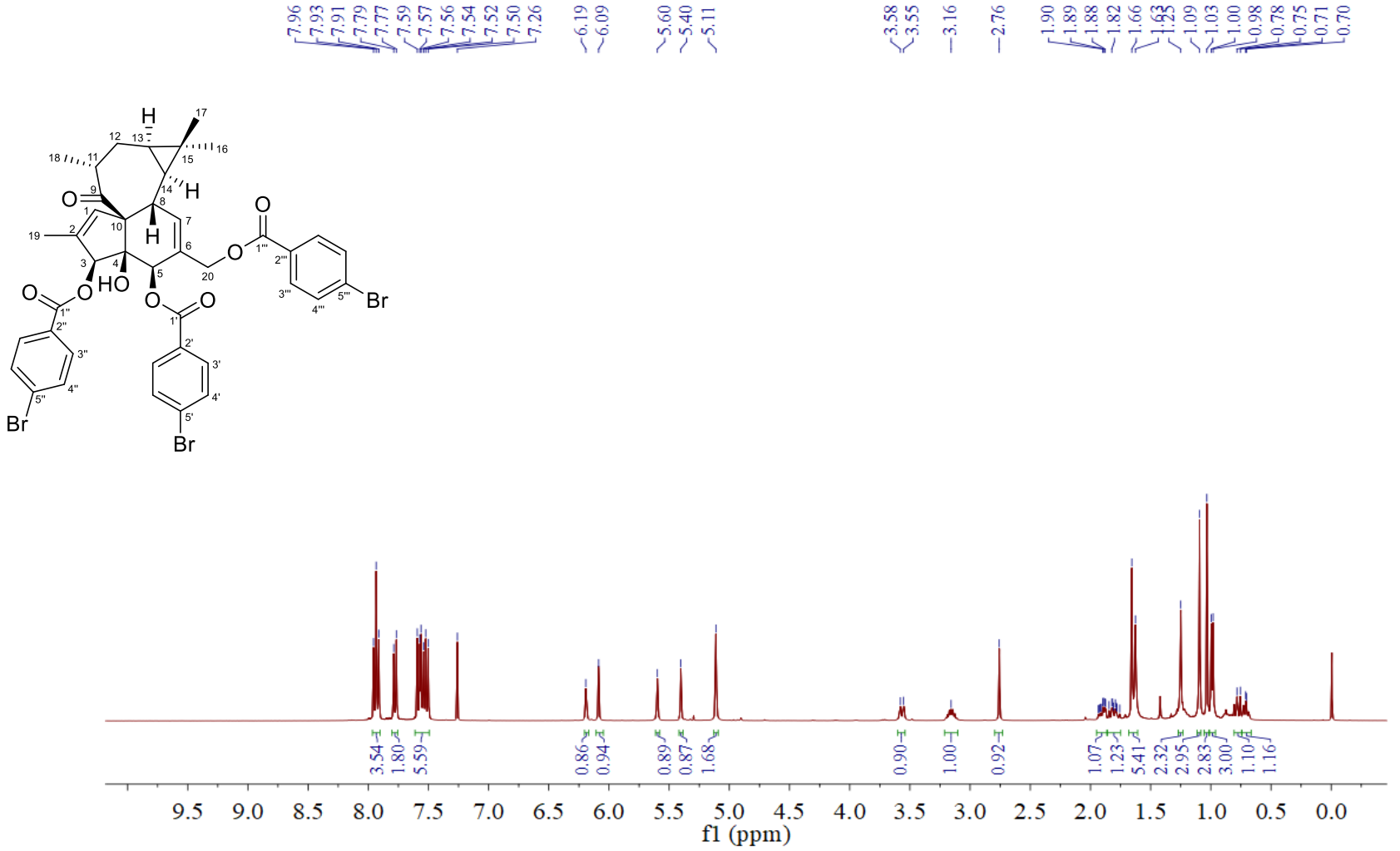


Fig. S34. Enlarged ^{1}H NMR spectrum of **1b** in 0–4.5 ppm.

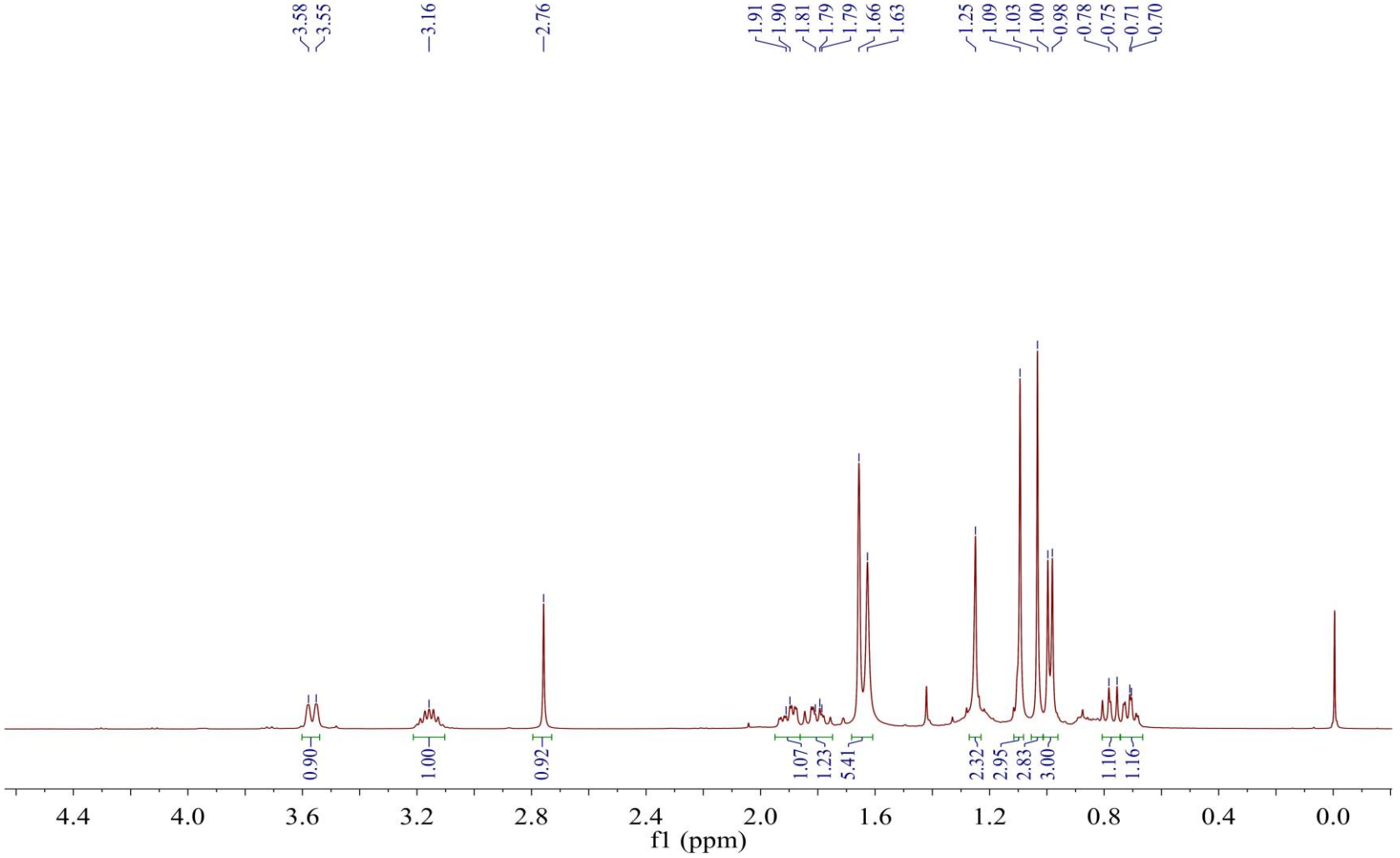


Fig. S35. Enlarged ^{1}H NMR spectrum of **1b** in 4.5–8.5 ppm.

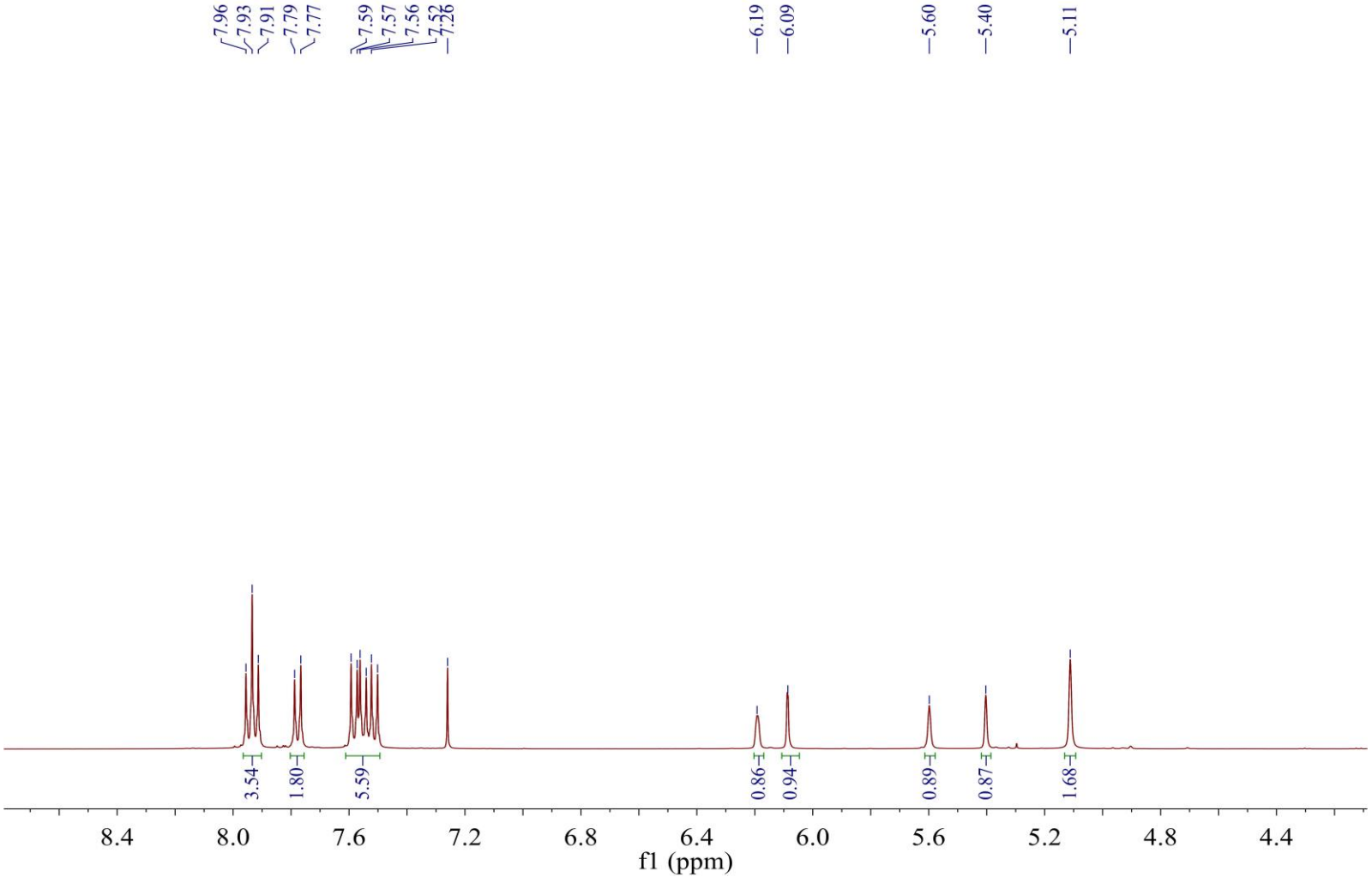


Fig. S36. ^{13}C NMR and DEPT spectra of **1b** in $CDCl_3$ (100 MHz).

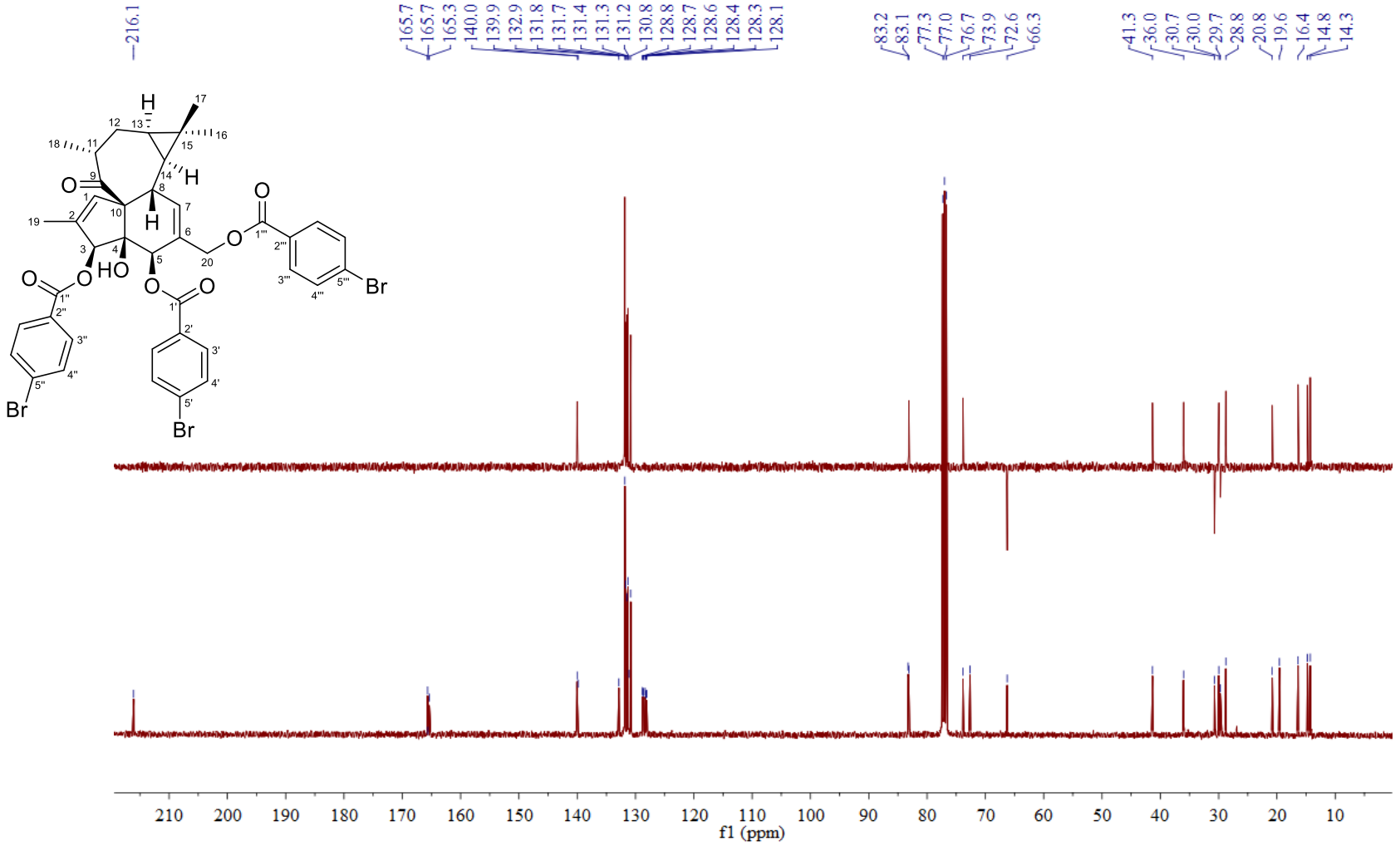


Fig. S37. HSQC spectrum of **1b** in $CDCl_3$ (400 MHz).

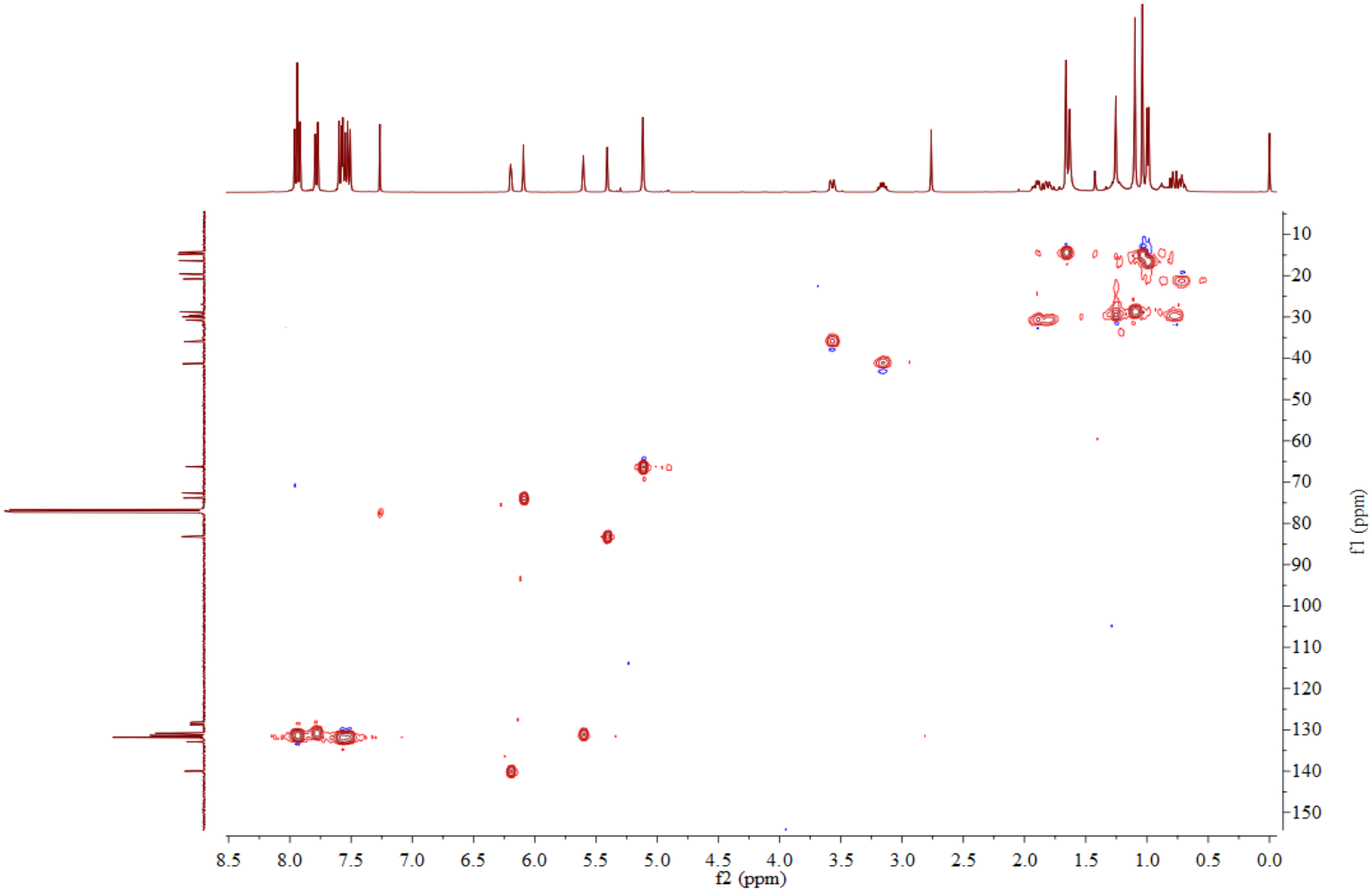


Fig. S38. HMBC spectrum of **1b** in $CDCl_3$ (400 MHz).

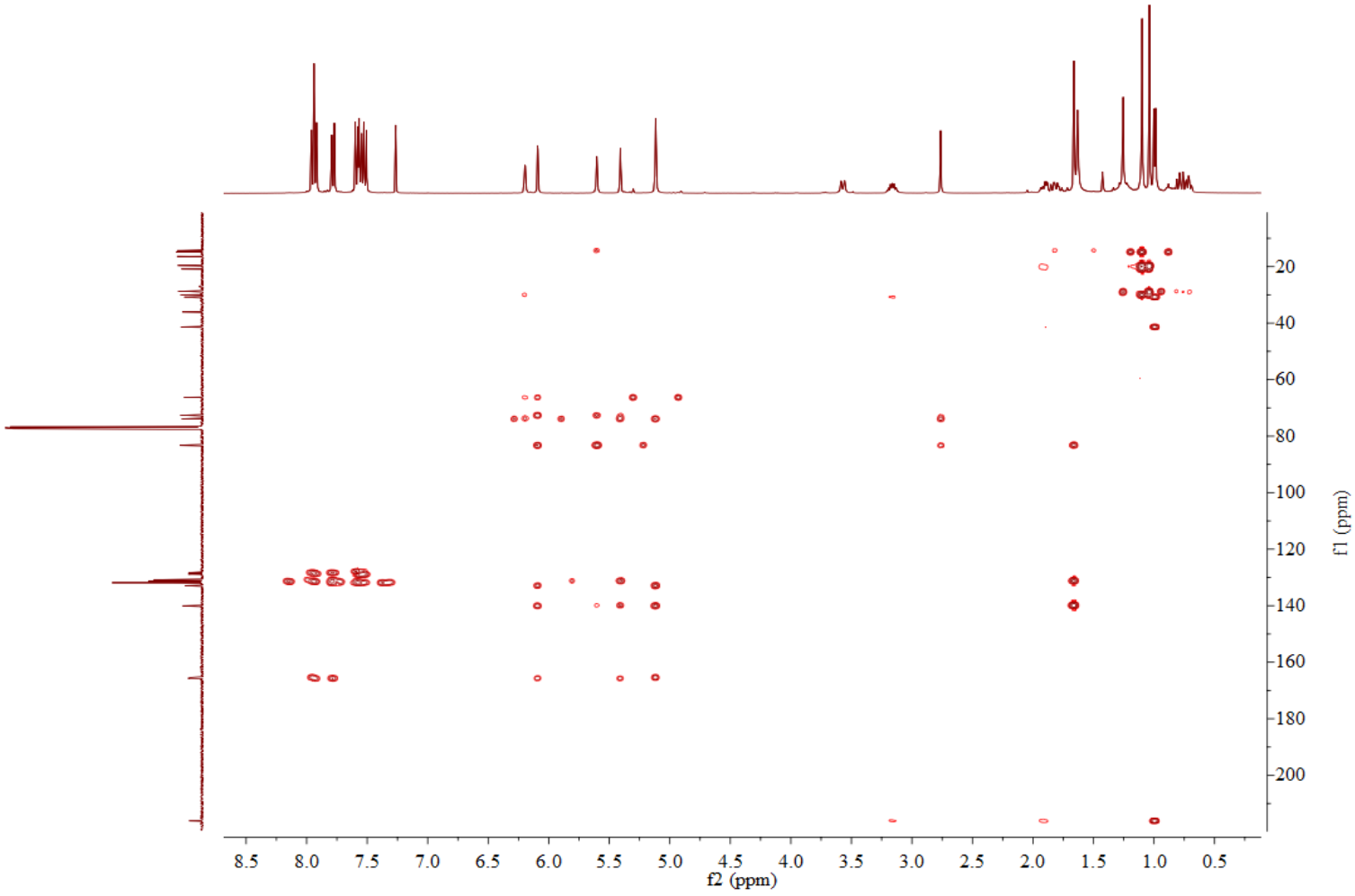


Fig. S39. $^{1}H–^{1}H$ COSY spectrum of **1b** in $CDCl_3$ (400 MHz).

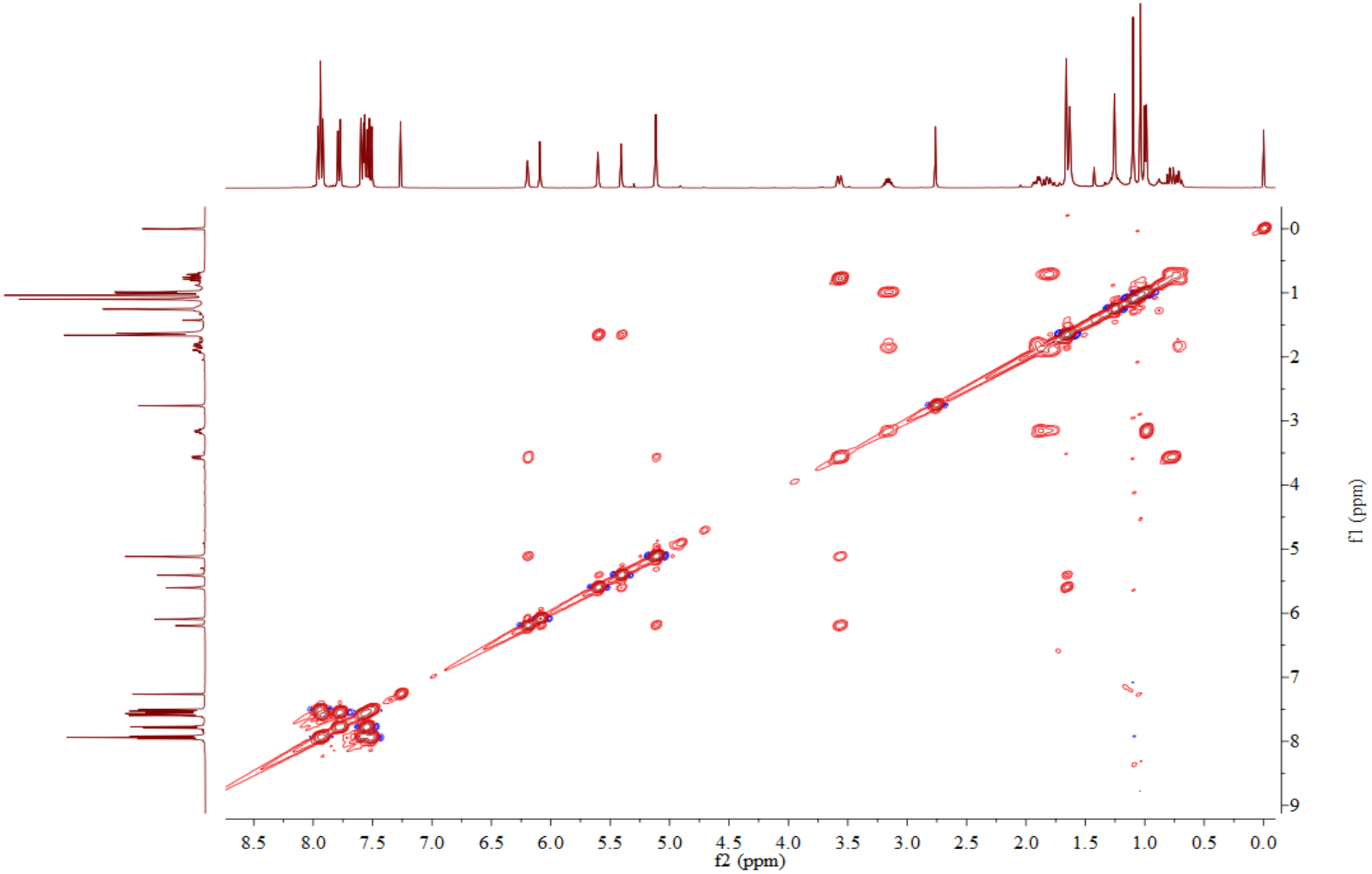


Fig. S40. NOESY spectrum of **1b** in $CDCl_3$ (400 MHz).

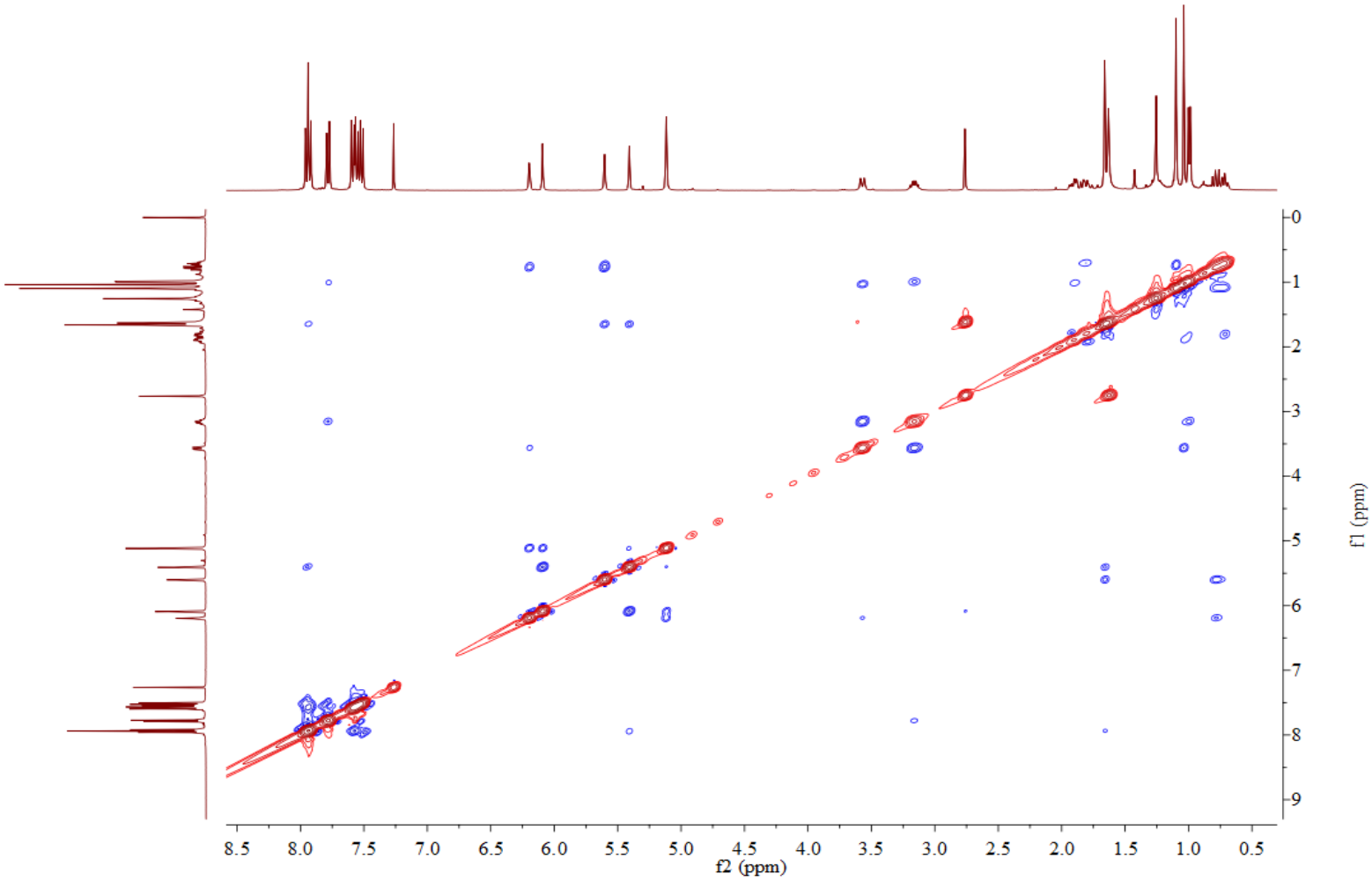
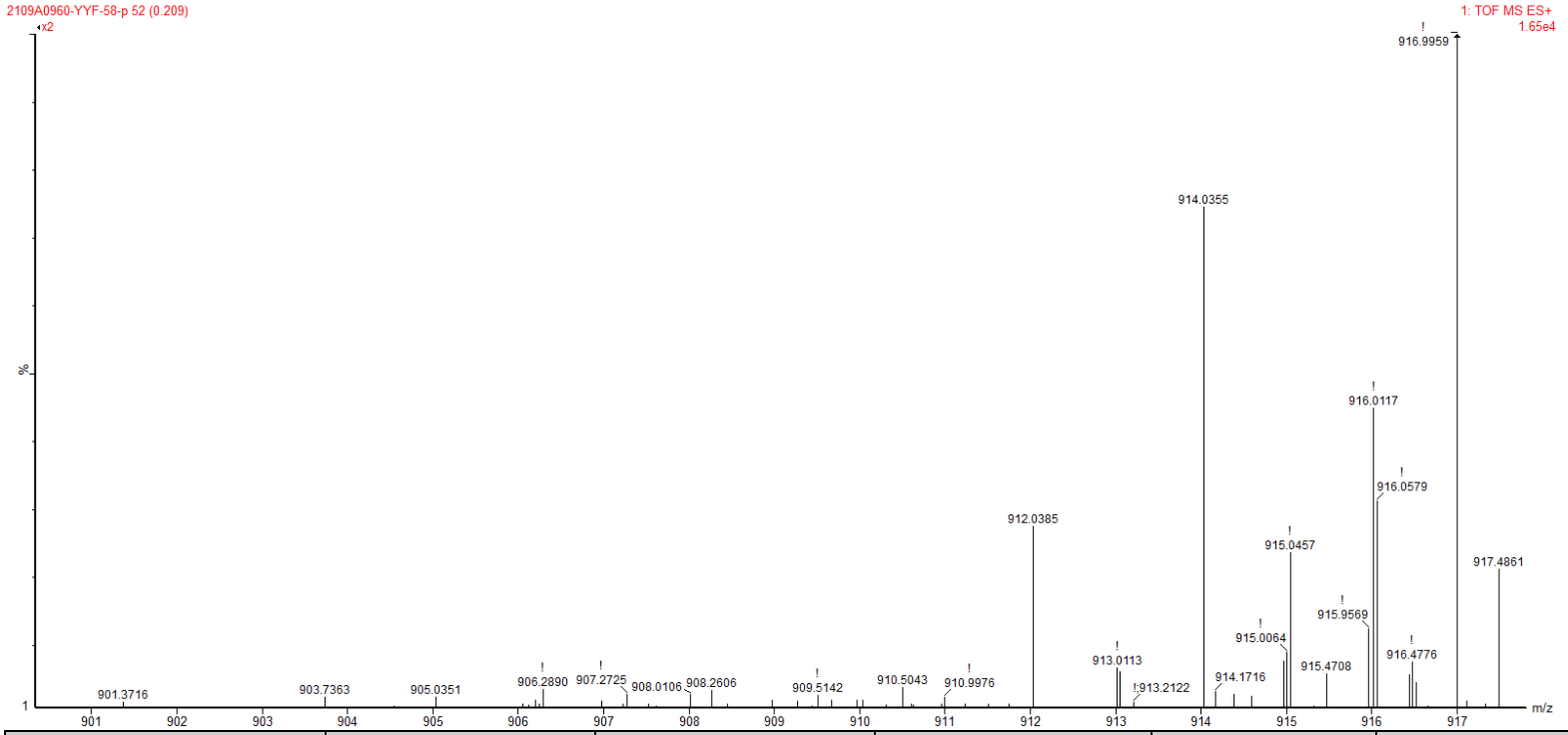


Fig. S41. HRESIMS spectrum of **1b**.



Formula (M)	Ion	Meas. m/z	Pred. m/z	Df. (mDa)	Df. (ppm)	DBE
$C_{41}H_{37}O_8NaBr_3$	$[M+Na]^+$	916.9959	916.9936	2.3	2.5	21.5