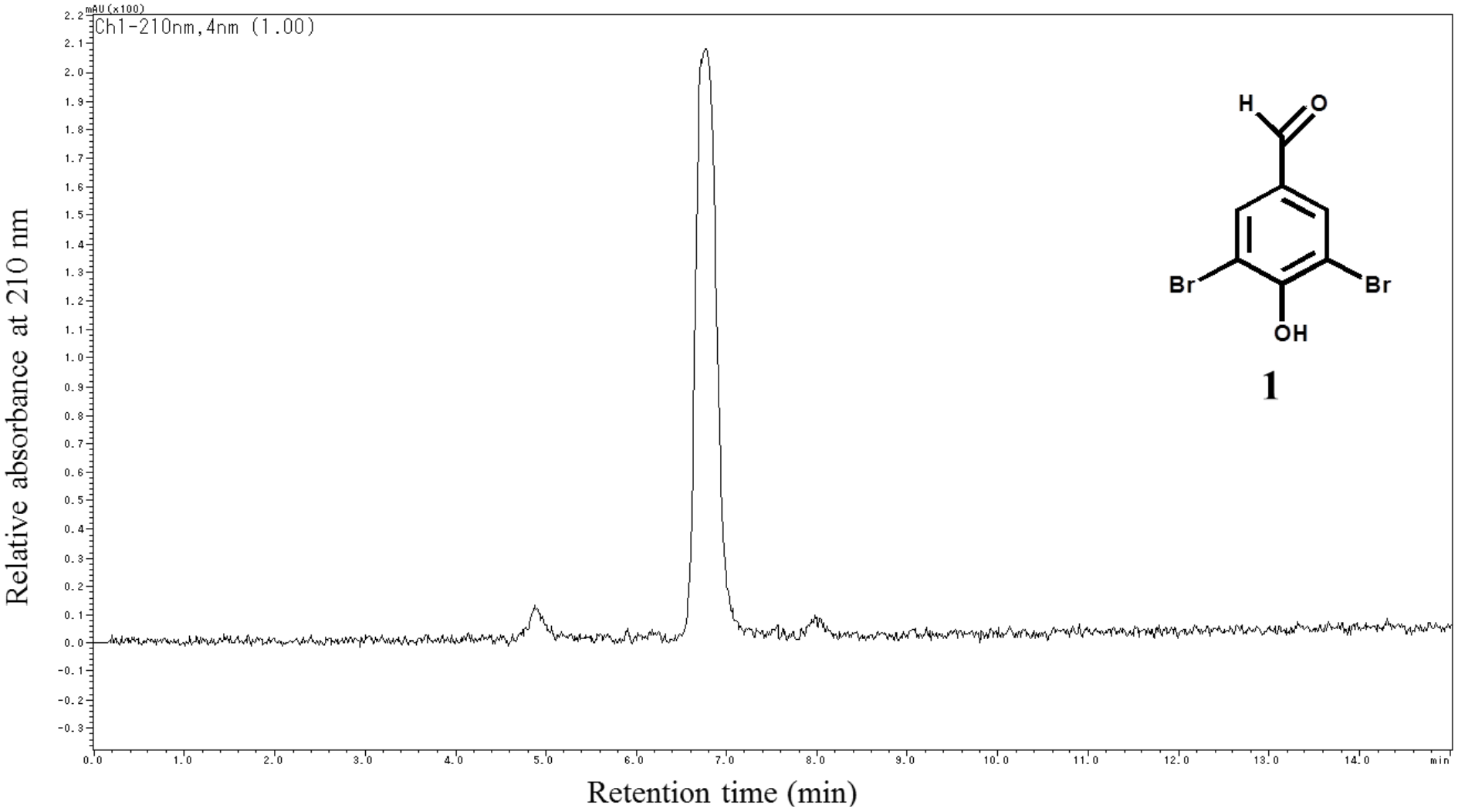
Supplementary Materials

Figure S1. HPLC chromatogram of compound **1**.



HPLC conditions: Columun: ULTRON VX-SIL RP-18 (φ 4.6 ×250 mm); Mobile phase: *n*-Hexane/EtOH/AcOH = 10:1:0.05 (v/v/v); Flow rate: 0.8 mL/min; Detection: UV 210 nm.

Figure S2. ^{1}H-NMR spectrum of compound **1** in acetone-d_6 at 500 MHz.

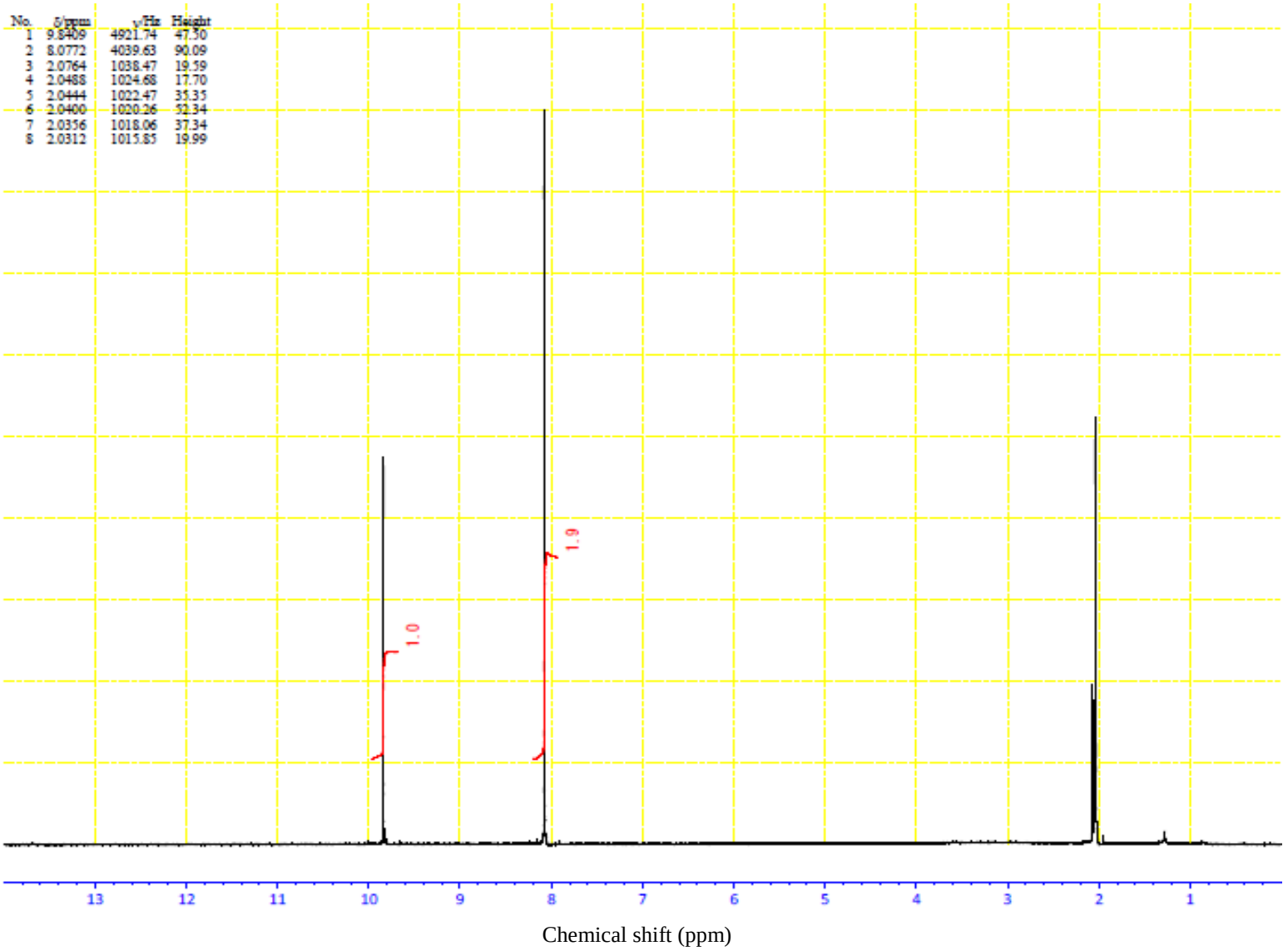


Figure S3. ^{13}C-NMR spectrum of compound **1** in acetone-d_6 at 125 MHz.

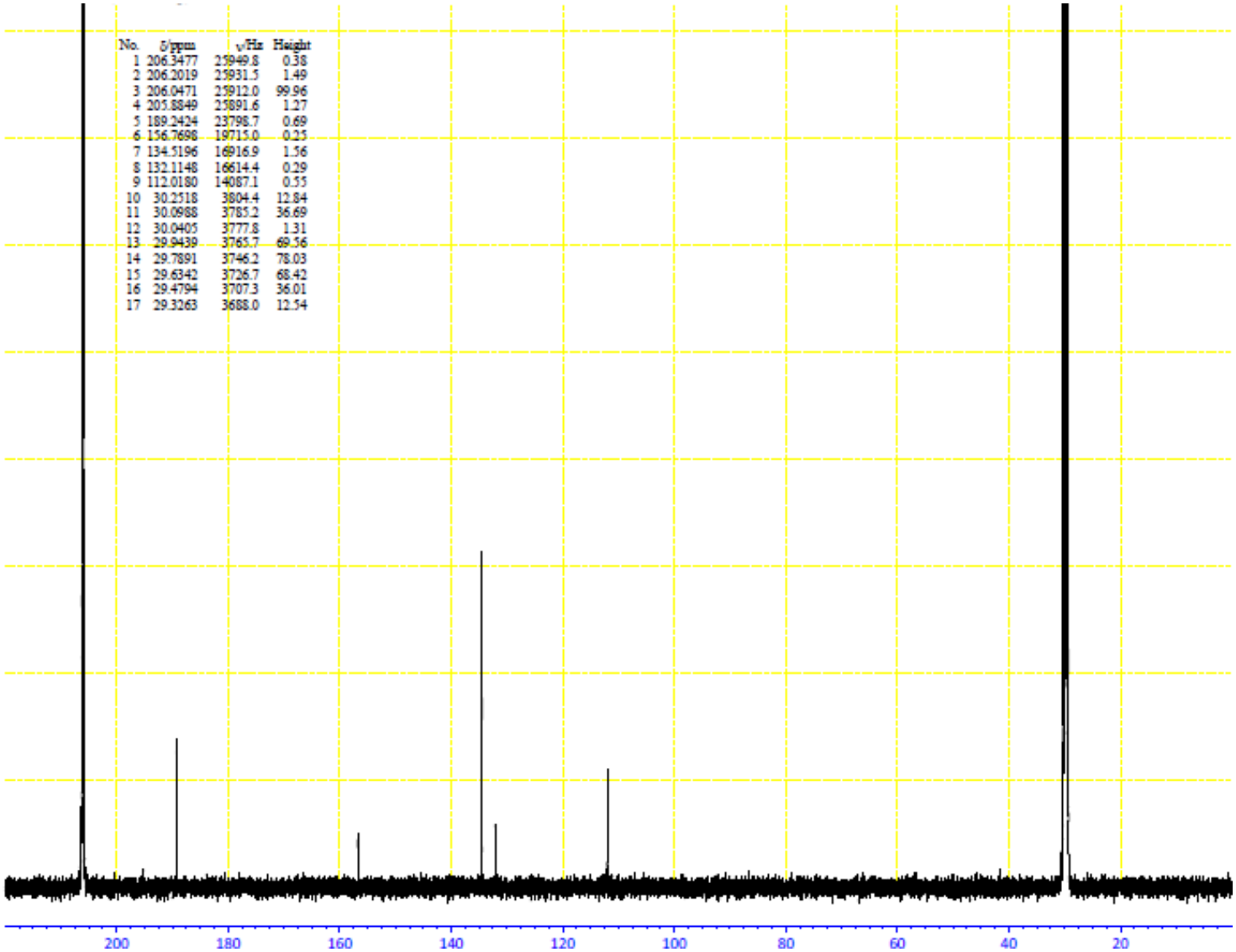
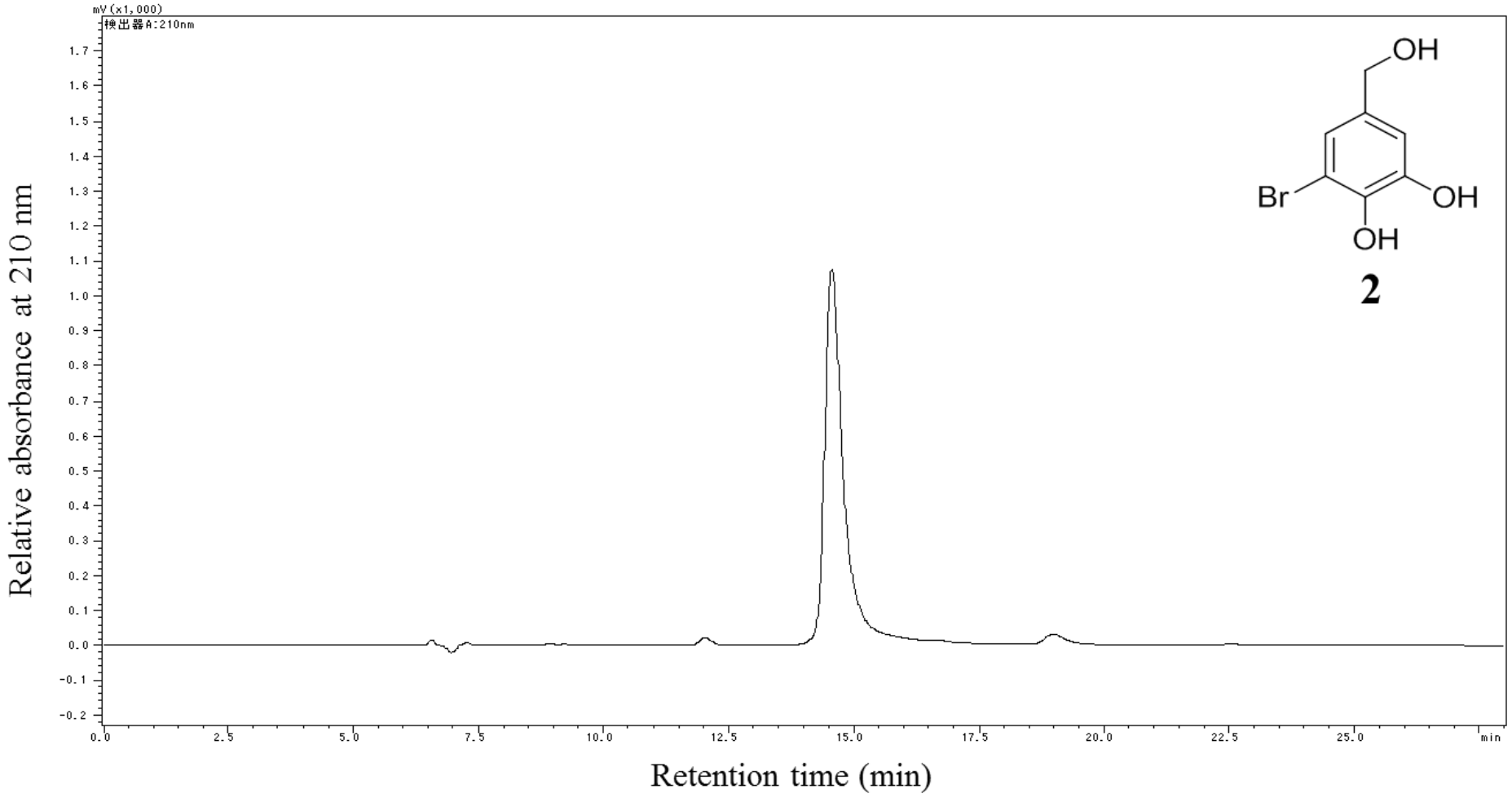
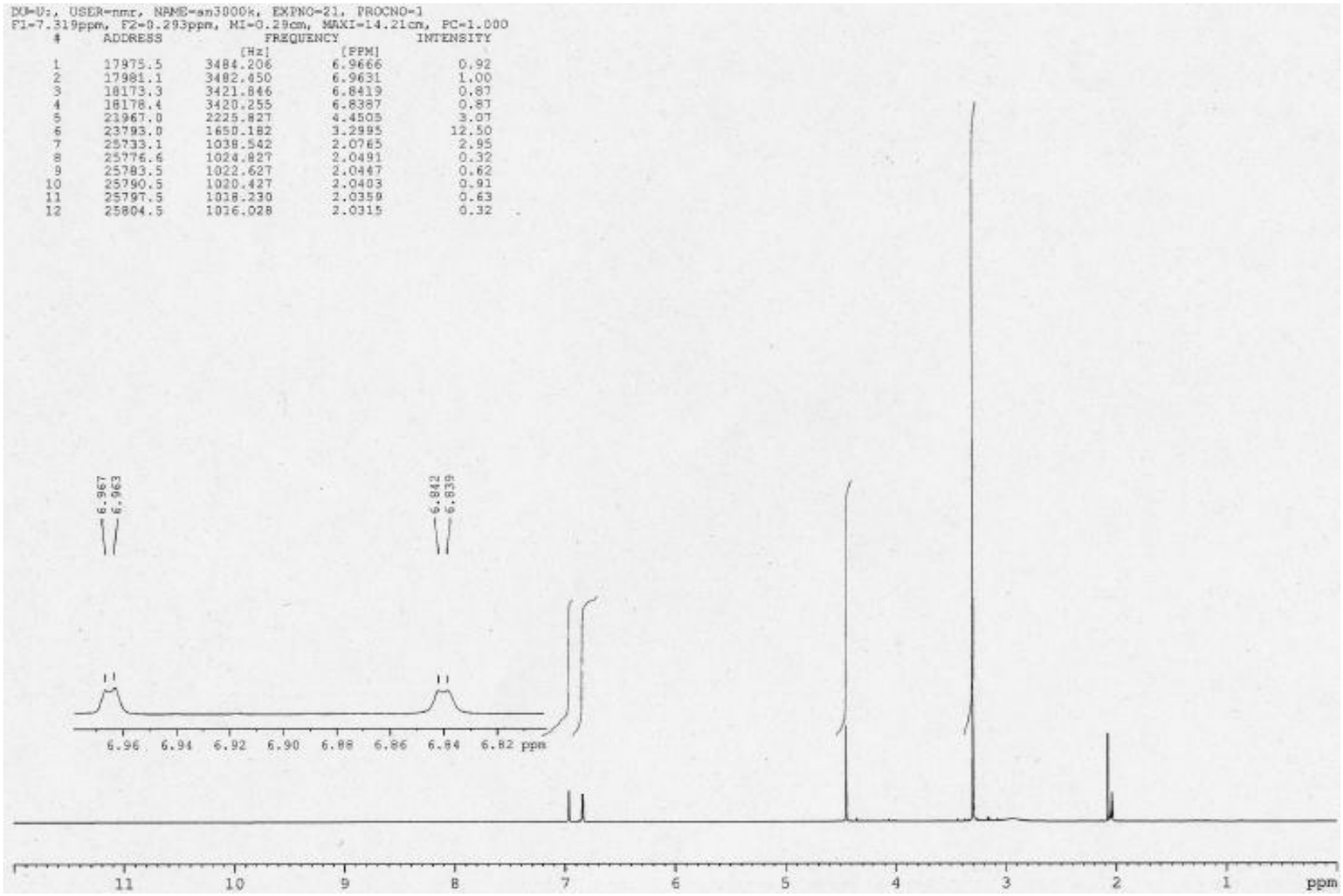


Figure S4. HPLC chromatogram of compound **2**.



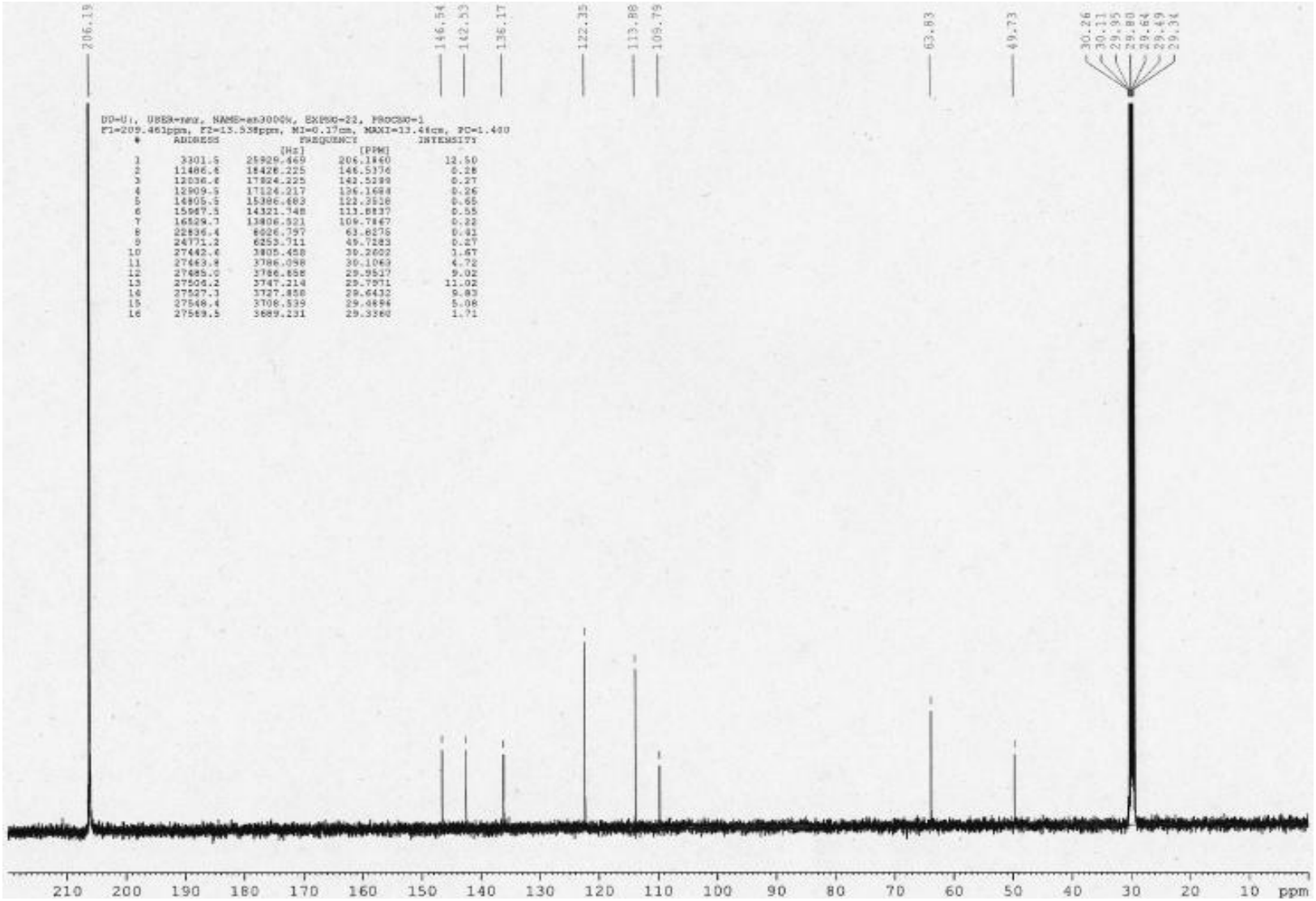
HPLC conditions: Columun: Mightysil RP-18 250–4.6 (5 μm); Mobile phase: 20% aqueous CH_3CN; Flow rate: 0.5 mL/min; Detection: UV 210 nm.

Figure S5. ^{1}H-NMR spectrum of **2** in acetone-d_6 at 500 MHz.



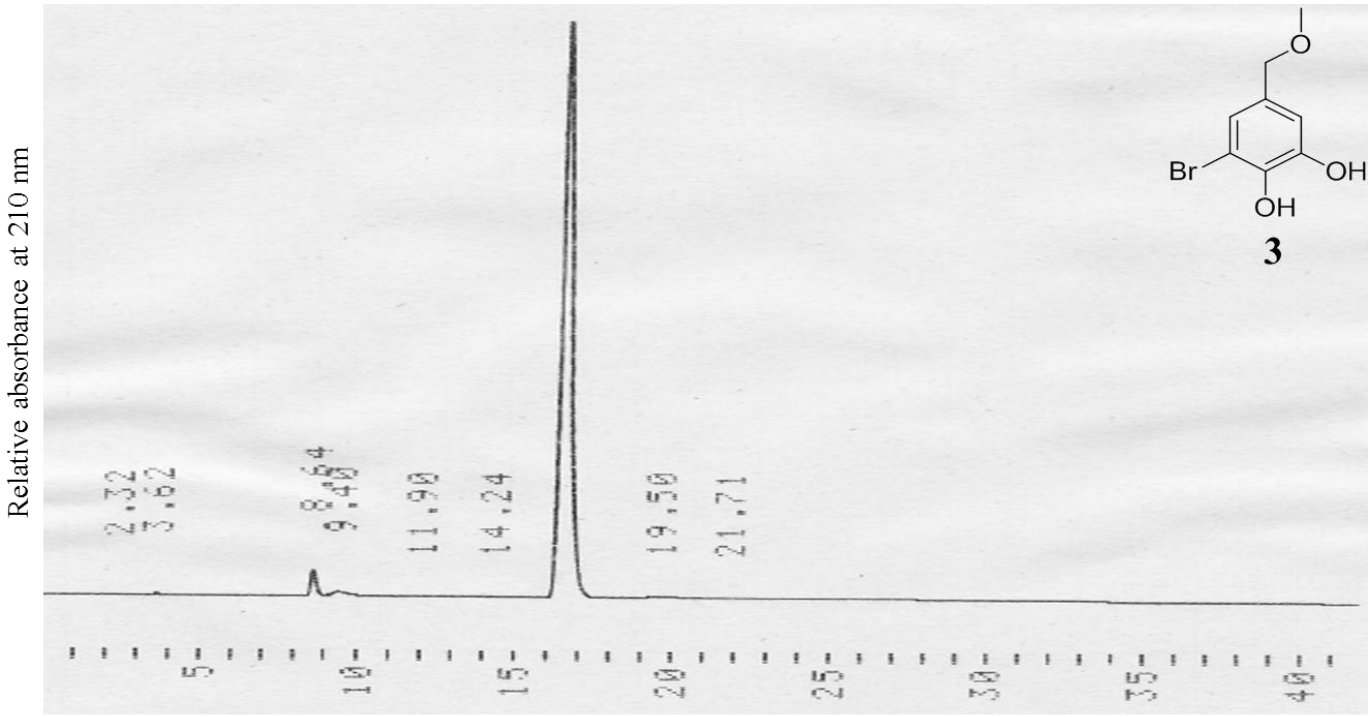
Chemical shift (ppm)

Figure S6. ^{13}C-NMR spectrum of **2** in acetone-d_6 at 125 MHz.



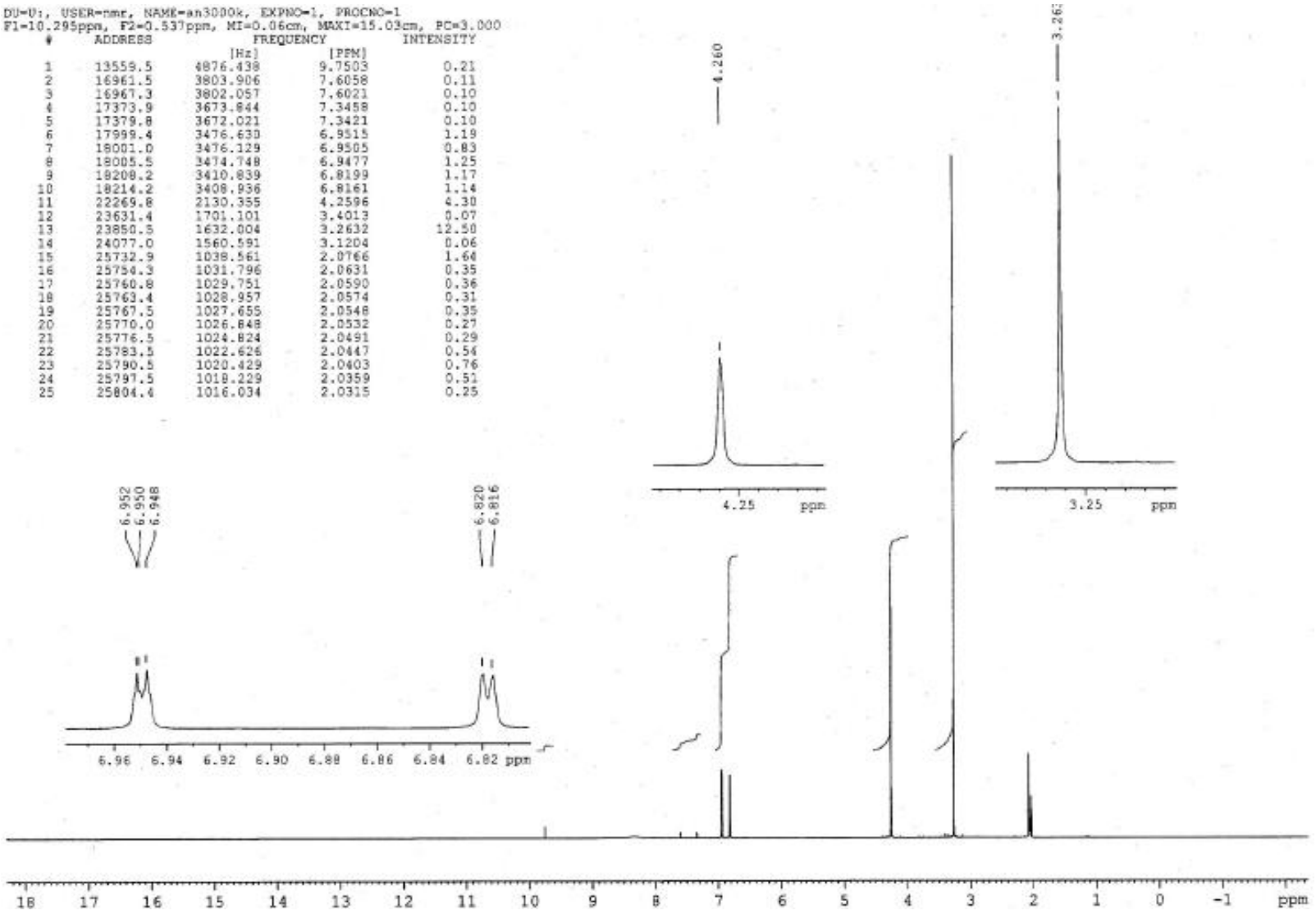
Chemical shift (ppm)

Figure S7. HPLC chromatogram of **3**.



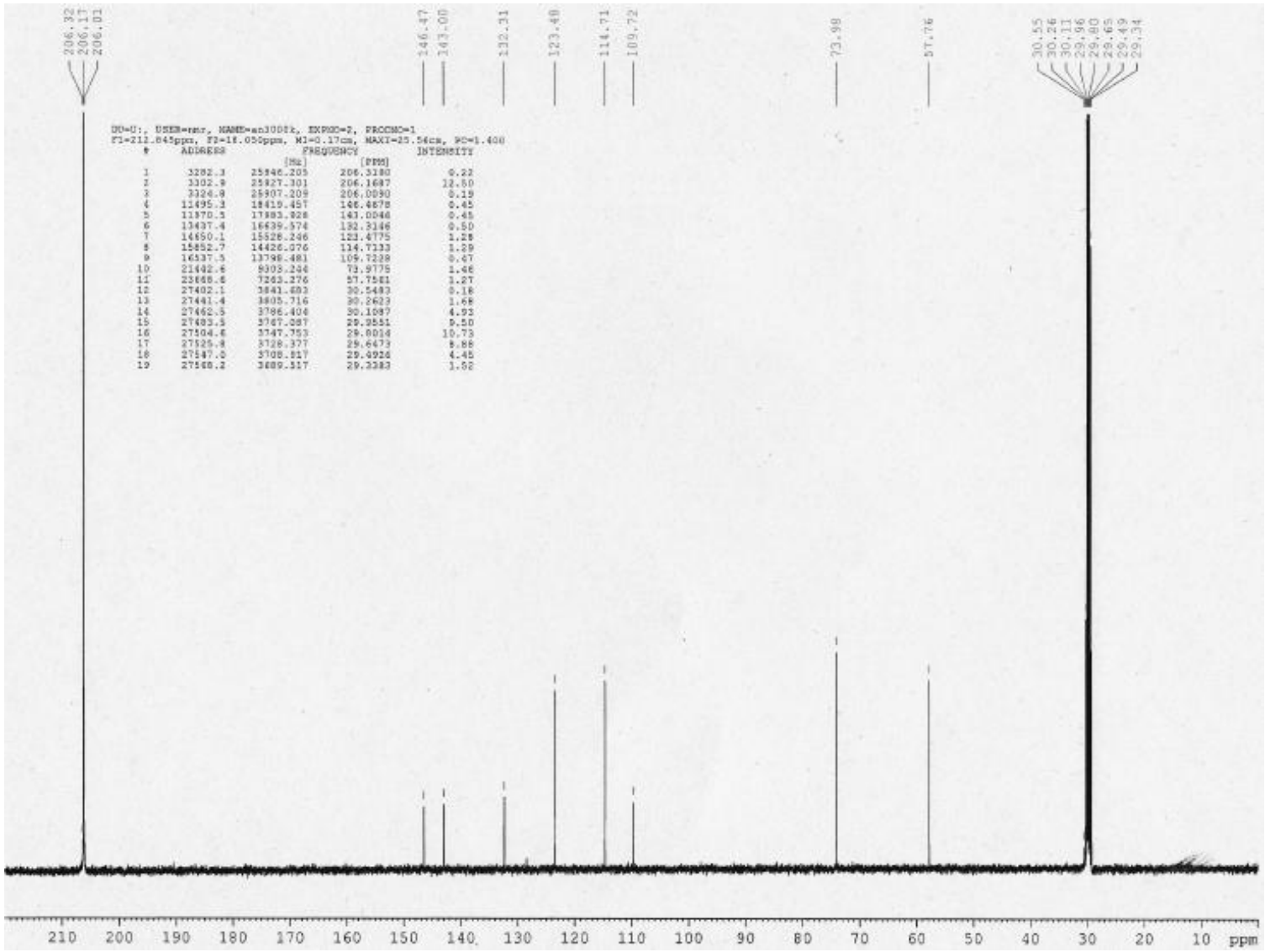
HPLC conditions: Columun: Mightysil RP-18 250–4.6 (5 μm); Mobile phase: 40% aqueous MeOH; Flow rate: 0.8 mL/min; Detection: UV 210 nm.

Figure S8. ^{1}H-NMR spectrum of **3** in acetone-d_6 at 500 MHz.



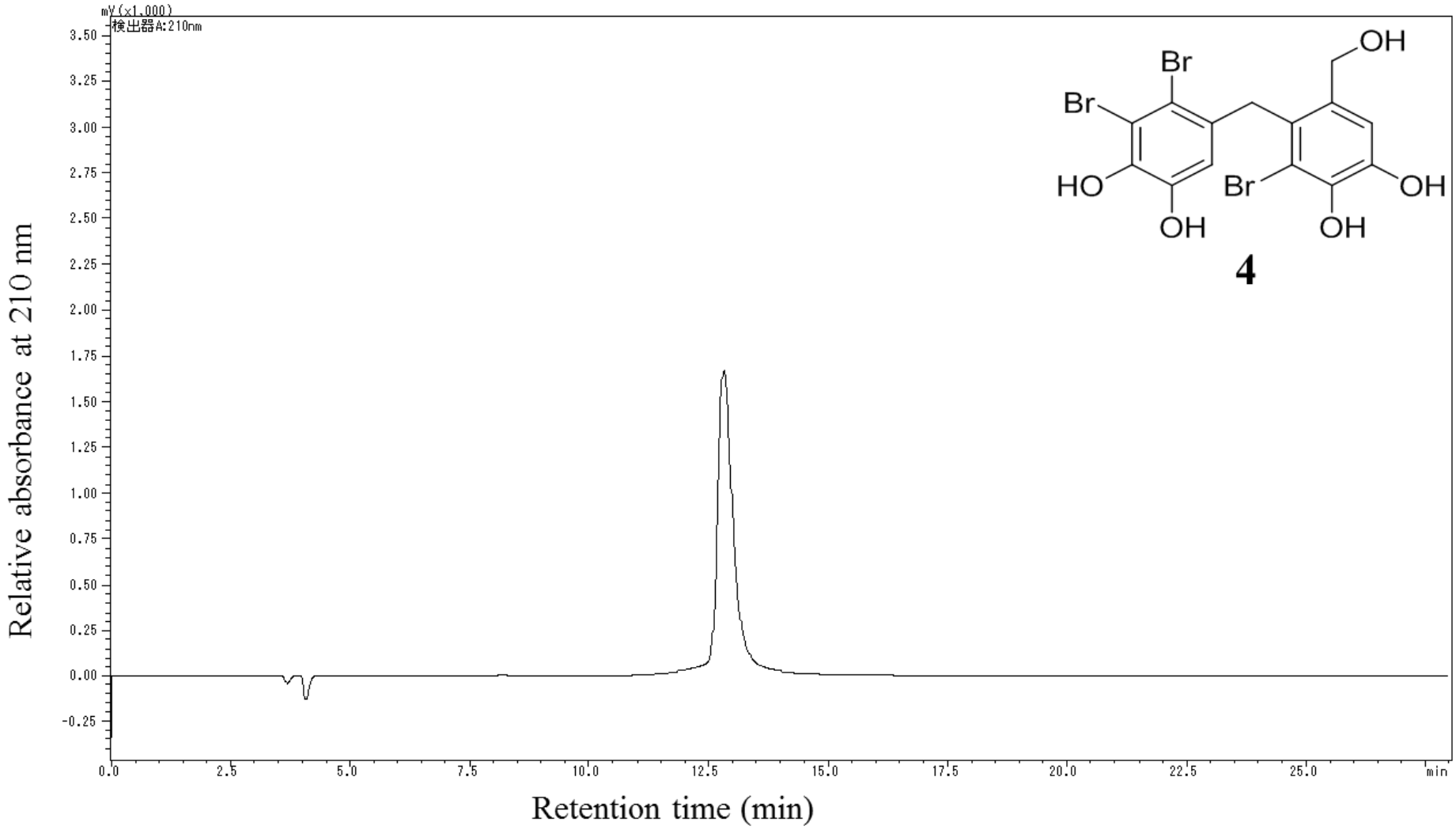
Chemical shift (ppm)

Figure S9. ^{13}C-NMR spectrum of **3** in acetone-d_6 at 125 MHz.



Chemical shift (ppm)

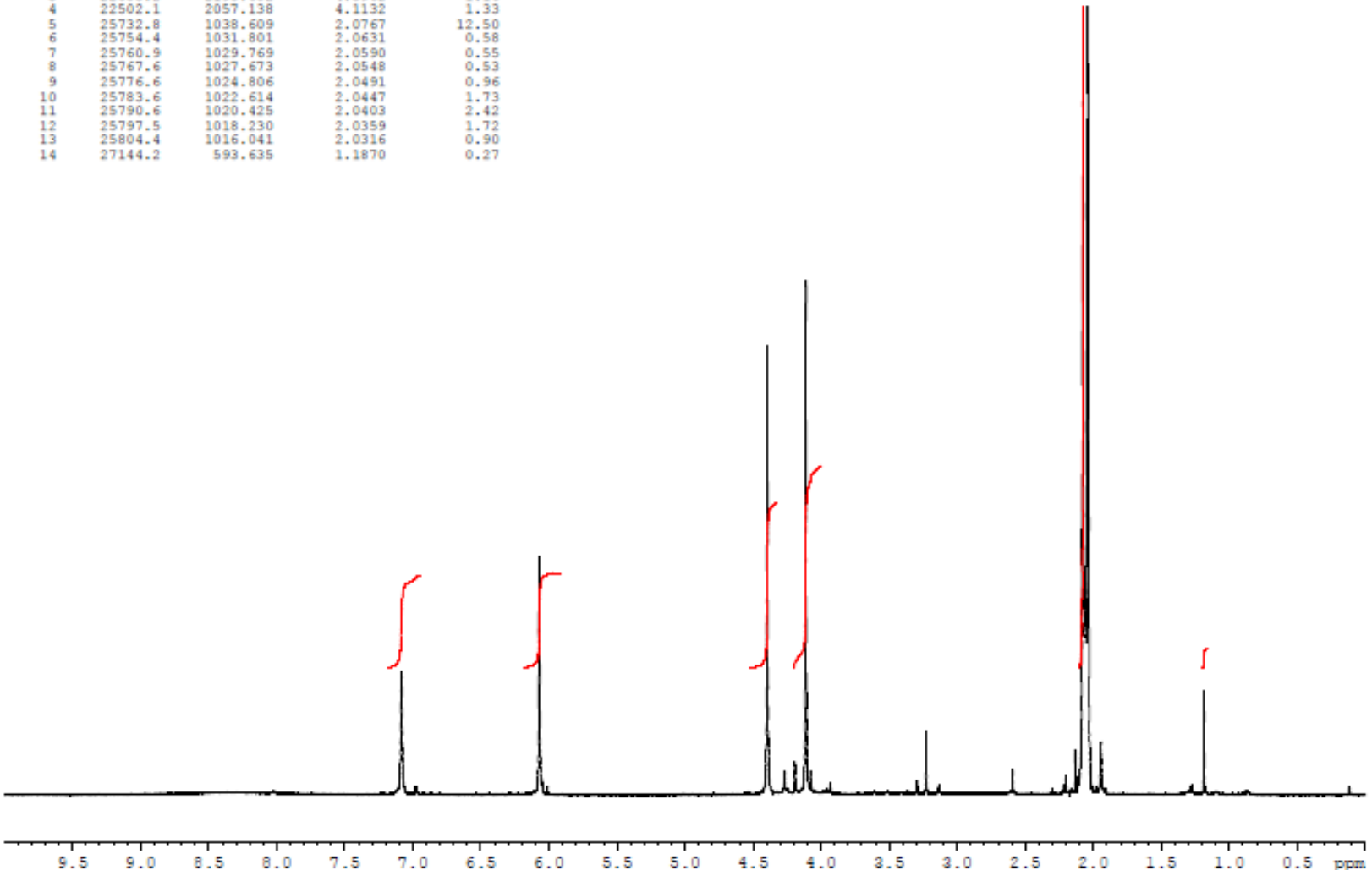
Figure S10. HPLC chromatogram of **4**.



HPLC conditions: Columun: Mightysil RP-18 250–4.6 (5 μm); Mobile phase: 60% aqueous MeOH + 0.1% AcOH; Flow rate: 0.8 mL/min; Detection: UV 210 nm.

Figure S11. ^{1}H-NMR spectrum of **4** in acetone-d_6 at 500 MHz.

#	ADDRESS	FREQUENCY [Hz]	[PPM]	INTENSITY
1	17790.7	3542.463	7.0831	0.32
2	19394.3	3036.915	6.0723	0.61
3	22053.2	2198.682	4.3962	1.16
4	22502.1	2057.138	4.1132	1.33
5	25732.8	1038.609	2.0767	12.50
6	25754.4	1031.801	2.0631	0.58
7	25760.9	1029.769	2.0590	0.55
8	25767.6	1027.673	2.0548	0.53
9	25776.6	1024.806	2.0491	0.96
10	25783.6	1022.614	2.0447	1.73
11	25790.6	1020.425	2.0403	2.42
12	25797.5	1018.230	2.0359	1.72
13	25804.4	1016.041	2.0316	0.90
14	27144.2	593.635	1.1870	0.27



Chemical shift (ppm)

Figure S12. ^{13}C-NMR spectrum of **4** in acetone-d_6 at 125 MHz.

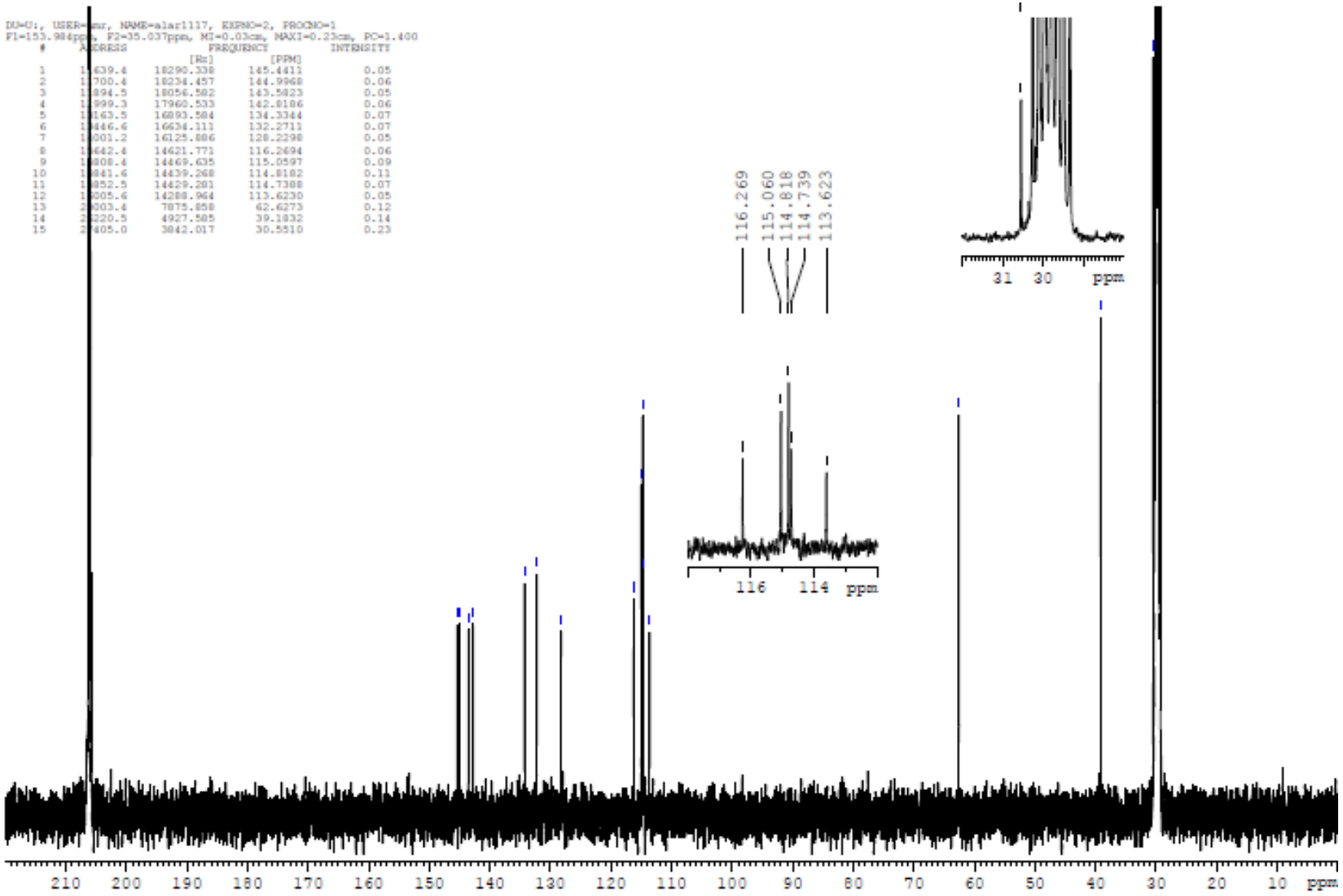
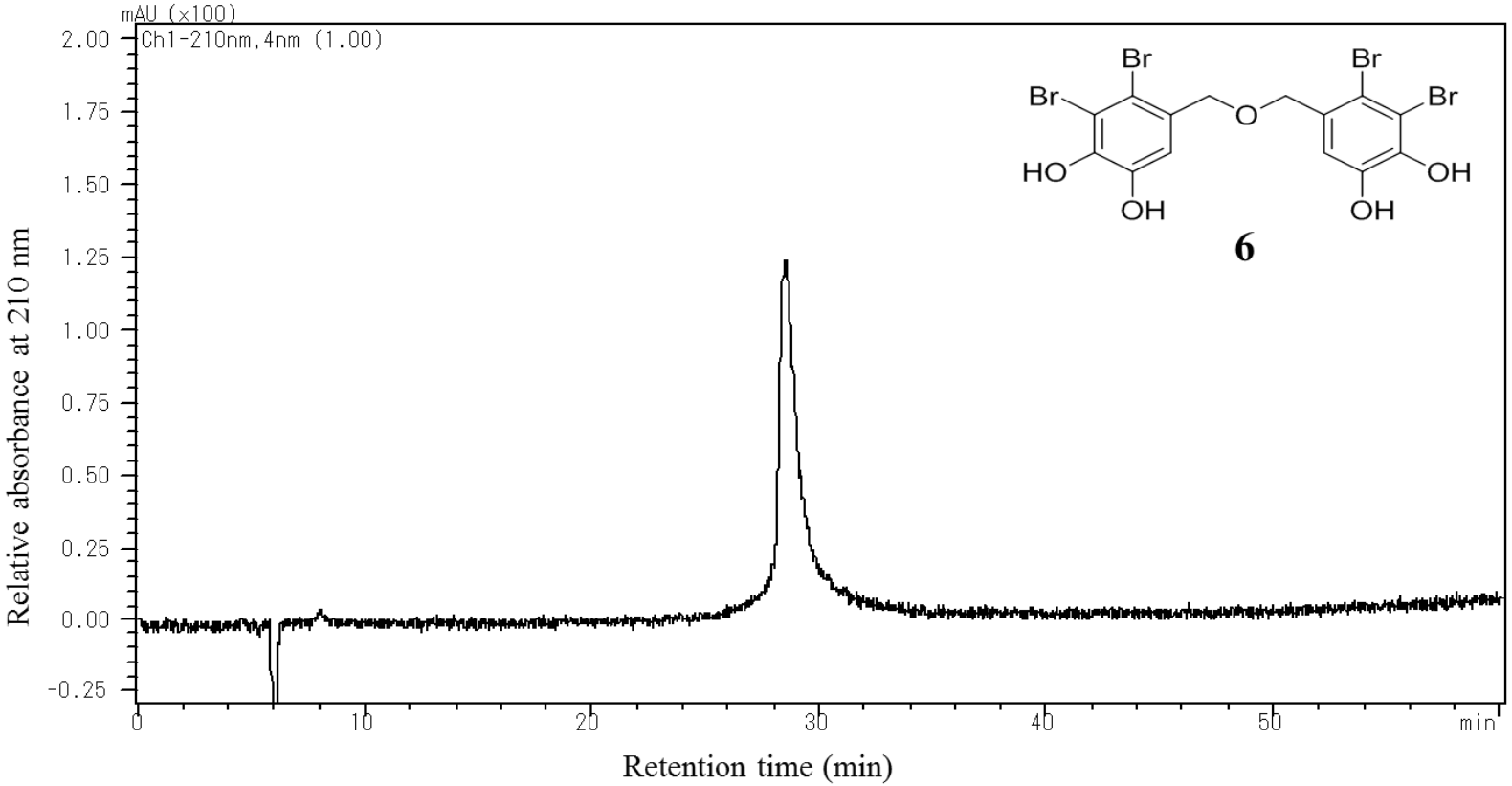


Figure S13. HPLC chromatogram of **5**.



HPLC conditions: Columun: Mightysil RP-18 250–4.6 (5 μm); Mobile phase: 50% aqueous CH_3CN + 0.1% AcOH; Flow rate: 0.5 mL/min; Detection: UV 210 nm.

Figure S14. ^{1}H-NMR spectrum of **5** in acetone-d_6 at 500 MHz.

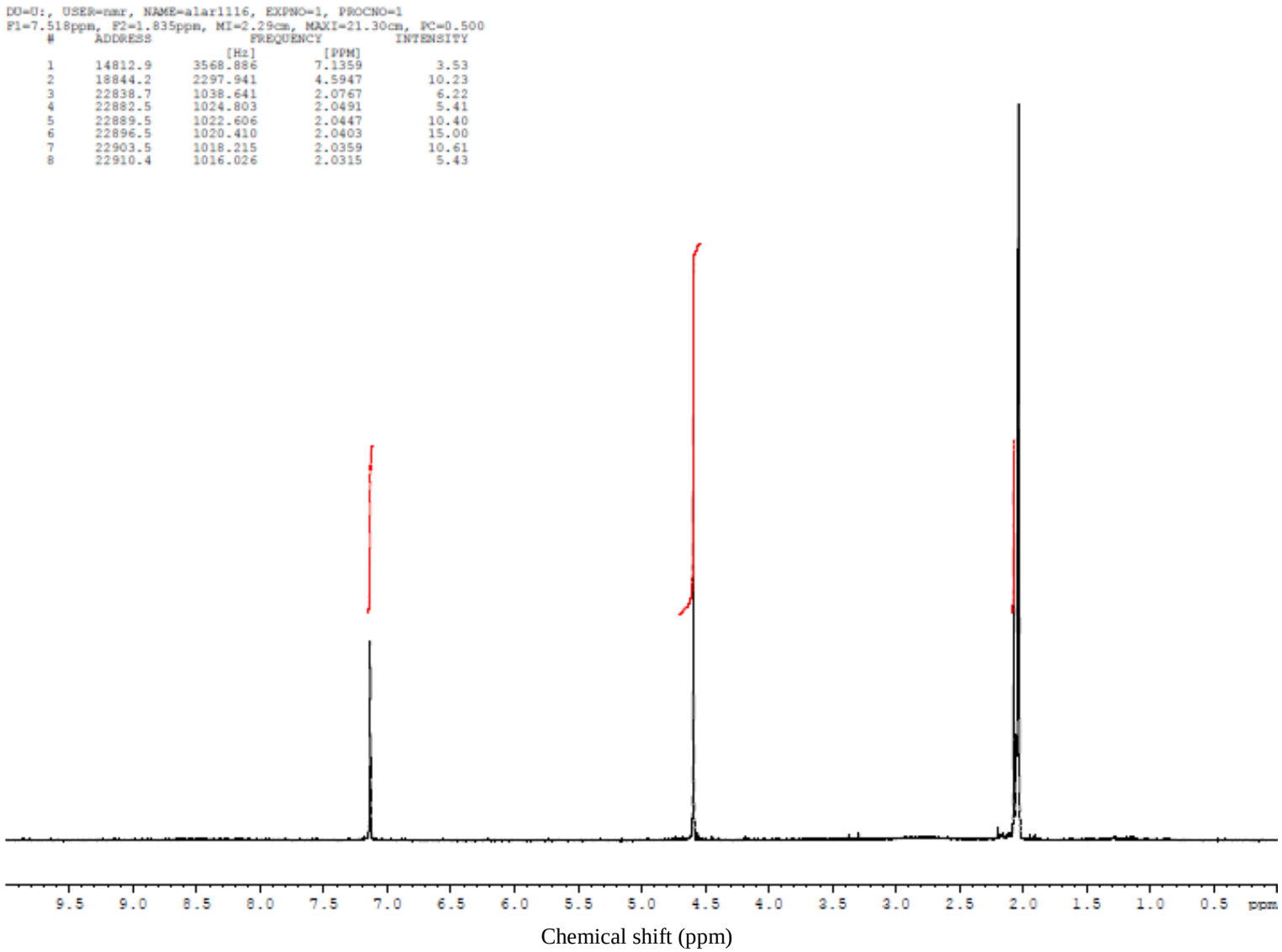
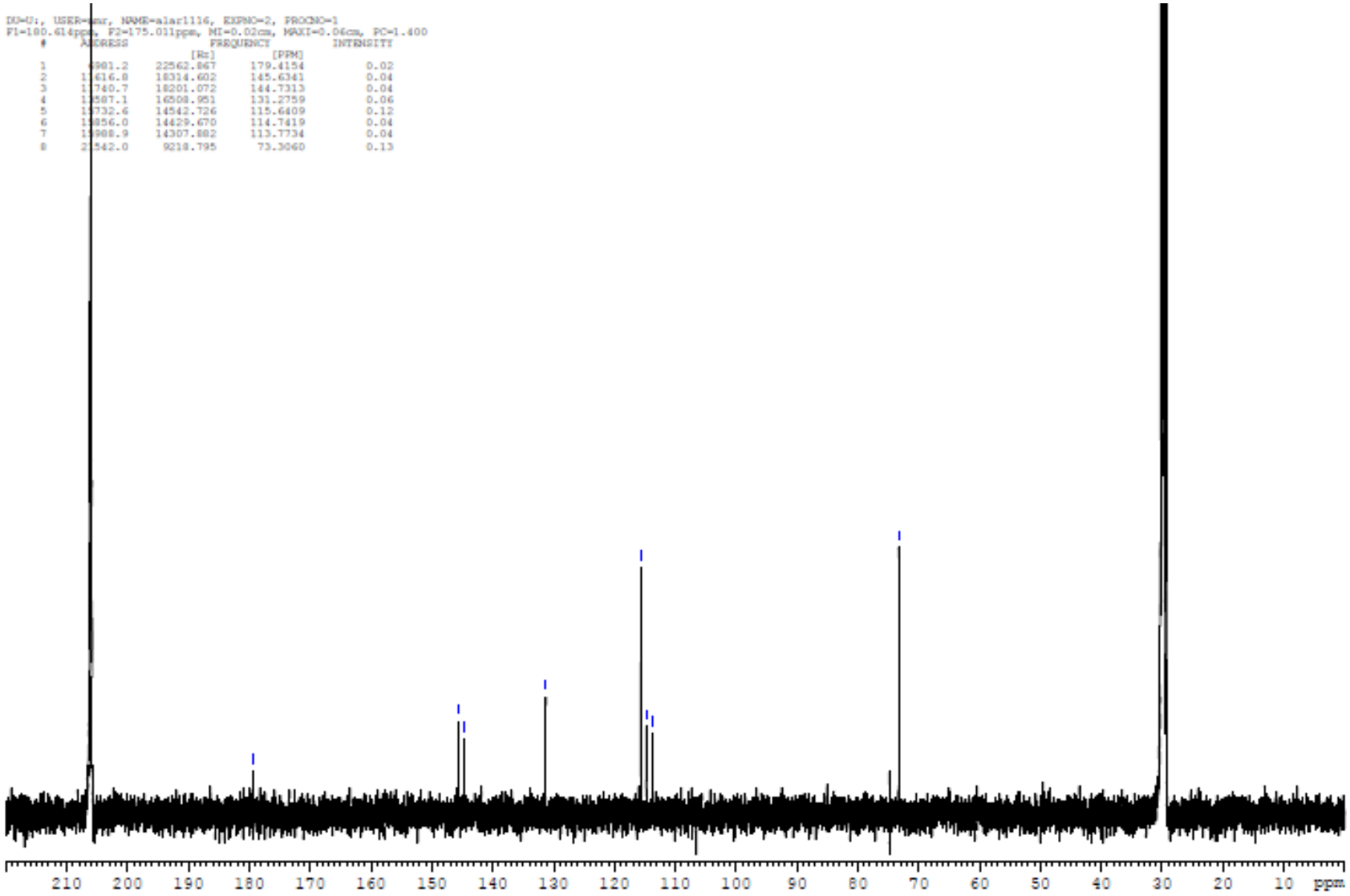


Figure S15. ^{13}C-NMR spectrum of **5** in acetone-d_6 at 125 MHz.



Chemical shift (ppm)