

Supporting Information

First Total Synthesis and *in vitro* Cytotoxicities of Flavesines G and J

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Table of content

Table S1. Comparison of NMR data for Flavesine J (16)	S2
Table S2. Comparison of NMR data for Flavesine G (10).....	S3
Figure S1. ^1H and ^{13}C spectra of compound 13	S4
Figure S2. ^1H and ^{13}C spectra of compound 14	S5
Figure S3. ^1H and ^{13}C spectra of compound 15	S6
Figure S4. ^1H and ^{13}C spectra of flavesine G (16) measured after chromatographic purification with an amine-containing mobile phase	S7
Figure S5. ^1H and ^{13}C spectra of flavesine G (7) measured after chromatographic purification with an acid-containing mobile phase	S8
Figure S6. ^1H and ^{13}C spectra comparison of flavesine G purified with an acidic or basic mobile phase	S9
Figure S7. ^1H and ^{13}C spectra of flavesine J (10).....	S10

Comparison of NMR data

Table S1. Flavesine G (**16**)

¹ H NMR Lit. ¹ (400MHz, Methanol- <i>d</i> 4)	¹ H NMR (400MHz, Methanol- <i>d</i> 4)
7.63, s	7.62 (1H, s)
3.45	3.42 – 3.50 (4H, m)
2.75	
2.72	2.70 – 2.80 (6H, m)
2.71	
2.23, t, <i>J</i> = 7.2 Hz	2.22 (2H, t, <i>J</i> = 8.0)
1.98	1.93 – 2.03 (4H, m)
1.87 m	1.82 – 1.92 (2H, m)

¹³ C NMR Lit. ¹ (100MHz, Methanol- <i>d</i> 4)	¹³ C NMR (100 MHz, Methanol- <i>d</i> 4)
181.4	181.2
153.7	153.8
150.1	149.7
135.7	135.1
116.9	116.8
115.4	115.3
51.4	51.2
50.7	50.6
38.1	37.8
31.4	31.1
26.5	26.3
25.2	25.0
23.3	23.1
21.0	20.8
20.9	20.7

¹ Zhang, Y.-B.; Luo, D.; Yang, L.; Cheng, W.; He, L.-J.; Kuang, G.-K.; Li, M.-M.; Li, Y.-L.; Wang, G.-C., Matrine-Type Alkaloids from the Roots of Sophora flavescens and Their Antiviral Activities against the Hepatitis B Virus. *Journal of Natural Products* **2018**, *81* (10), 2259-2265.

Table S2. Flavesine J (**10**)

¹ H NMR Lit. ¹ (400MHz, Methanol- <i>d</i> 4)	¹ H NMR (400MHz, Methanol- <i>d</i> 4)
7.56 (s)	7.58 (1H, s)
3.52 (m)	3.51 – 3.55 (2H, m)
3.45 (m)	3.43 – 3.47 (2H, m)
3.24	3.25 – 3.30 (4H, m)
3.24	
2.68	2.62 – 2.72 (6H, m)
2.64	
2.61 (m)	
2.41 (t, 7.3)	2.42 (2H, t, <i>J</i> = 8.0 Hz)
1.94	1.91 – 1.99 (4H, m)
1.92	
1.83 (m)	1.81 – 1.88 (2H, m)
1.65 (m)	1.64 – 1.70 (2H, m)
1.57 (m)	1.50 – 1.60 (4H, m)
1.52 (m)	

¹³ C NMR Lit. ¹ (100MHz, Methanol- <i>d</i> 4)	¹³ C NMR (100 MHz, Methanol- <i>d</i> 4)
173.4	173.3
156.4	155.1
149.8	150.6
145.3	143.5
115.4	115.7
114.3	114.5
50.6	50.7
49.8	50.0
48.0	48.0
43.9	43.9
34.8	34.2
33.7	33.6
27.6	27.6
26.8	26.8
26.1	25.9
25.5	25.5
25.5	25.4
24.2	24.0
22.2	22.0
22.2	21.9

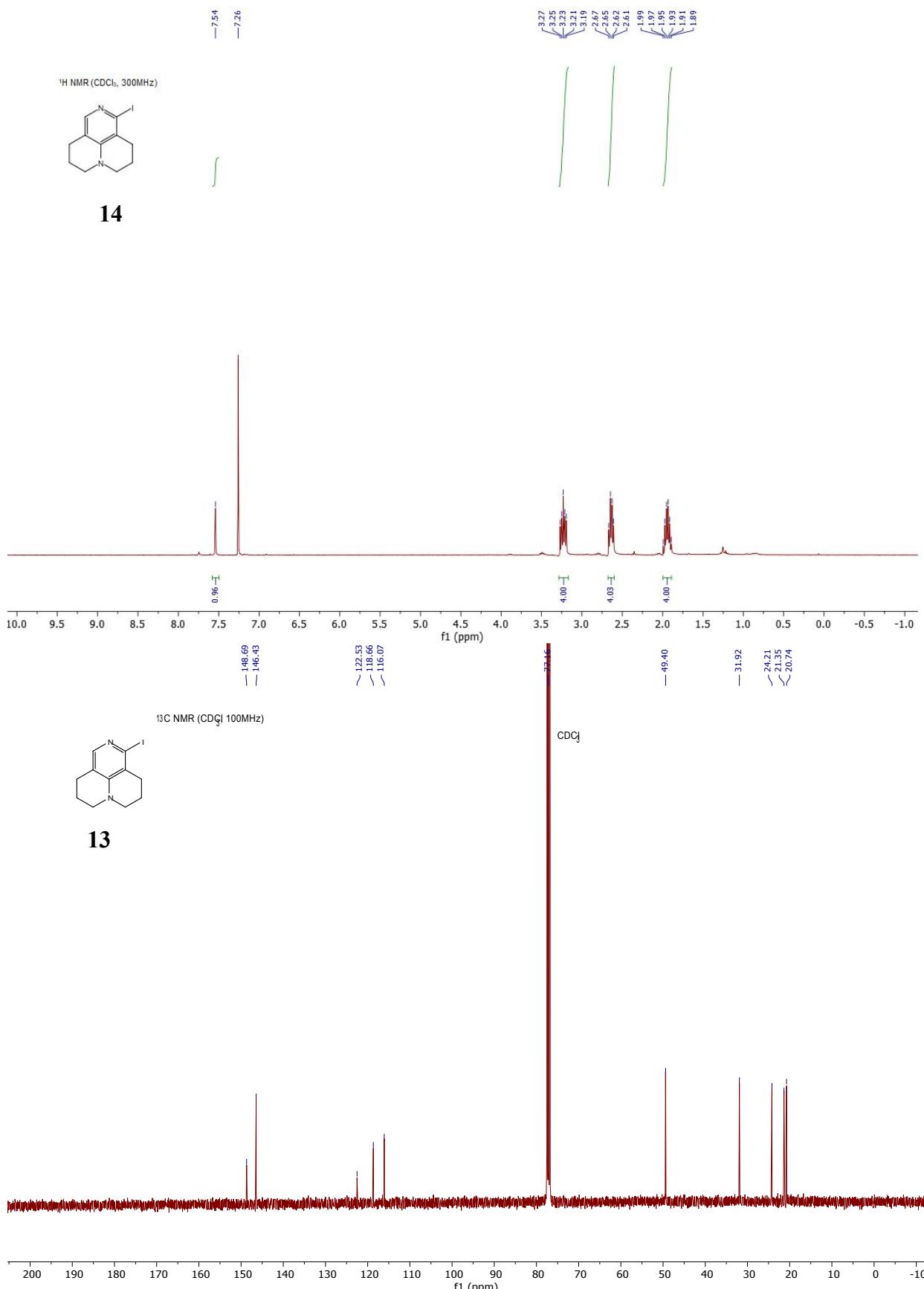


Figure S1. ¹H and ¹³C spectra of compound 13

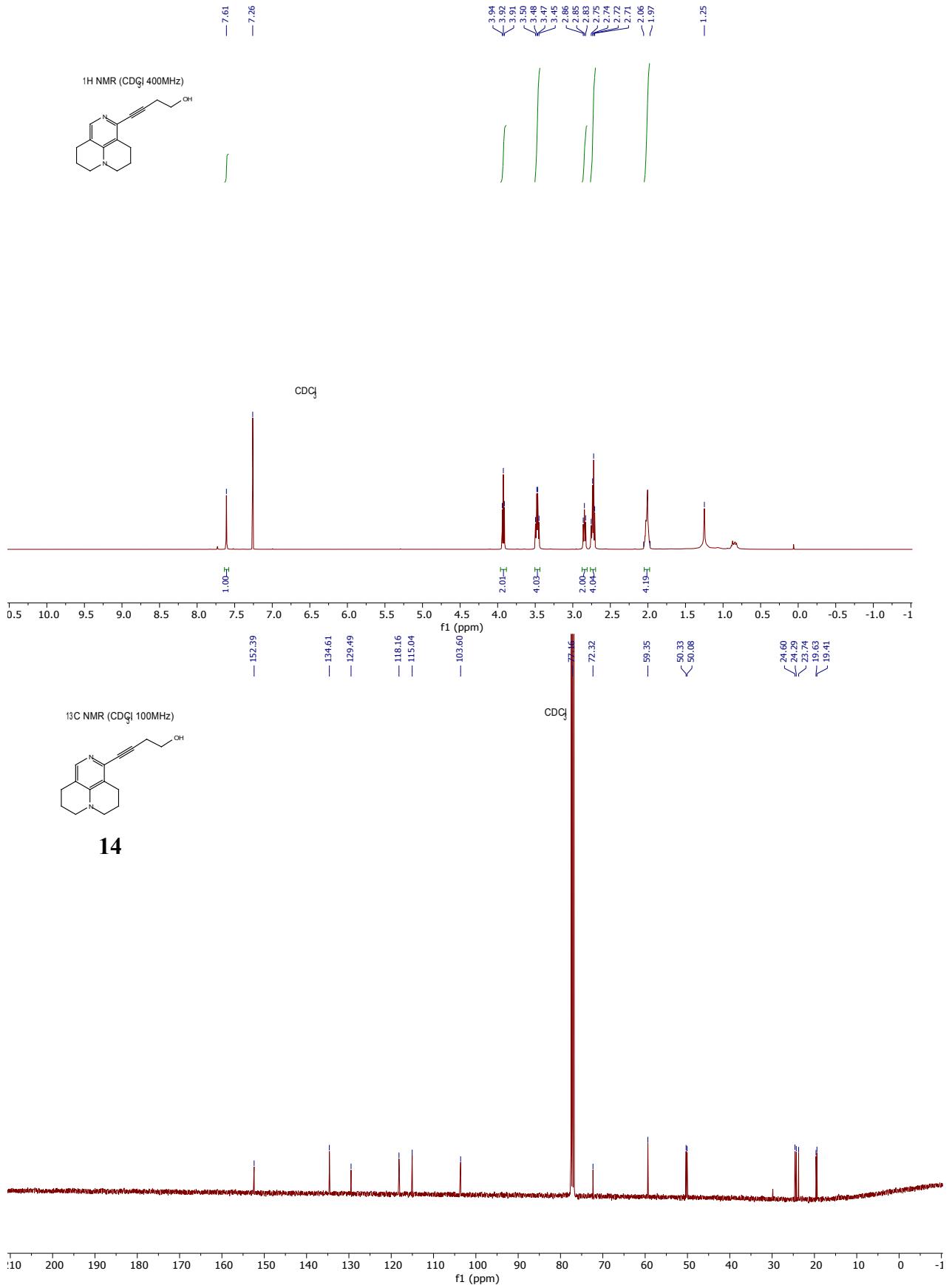


Figure S2. ^1H and ^{13}C spectra of compound **14**

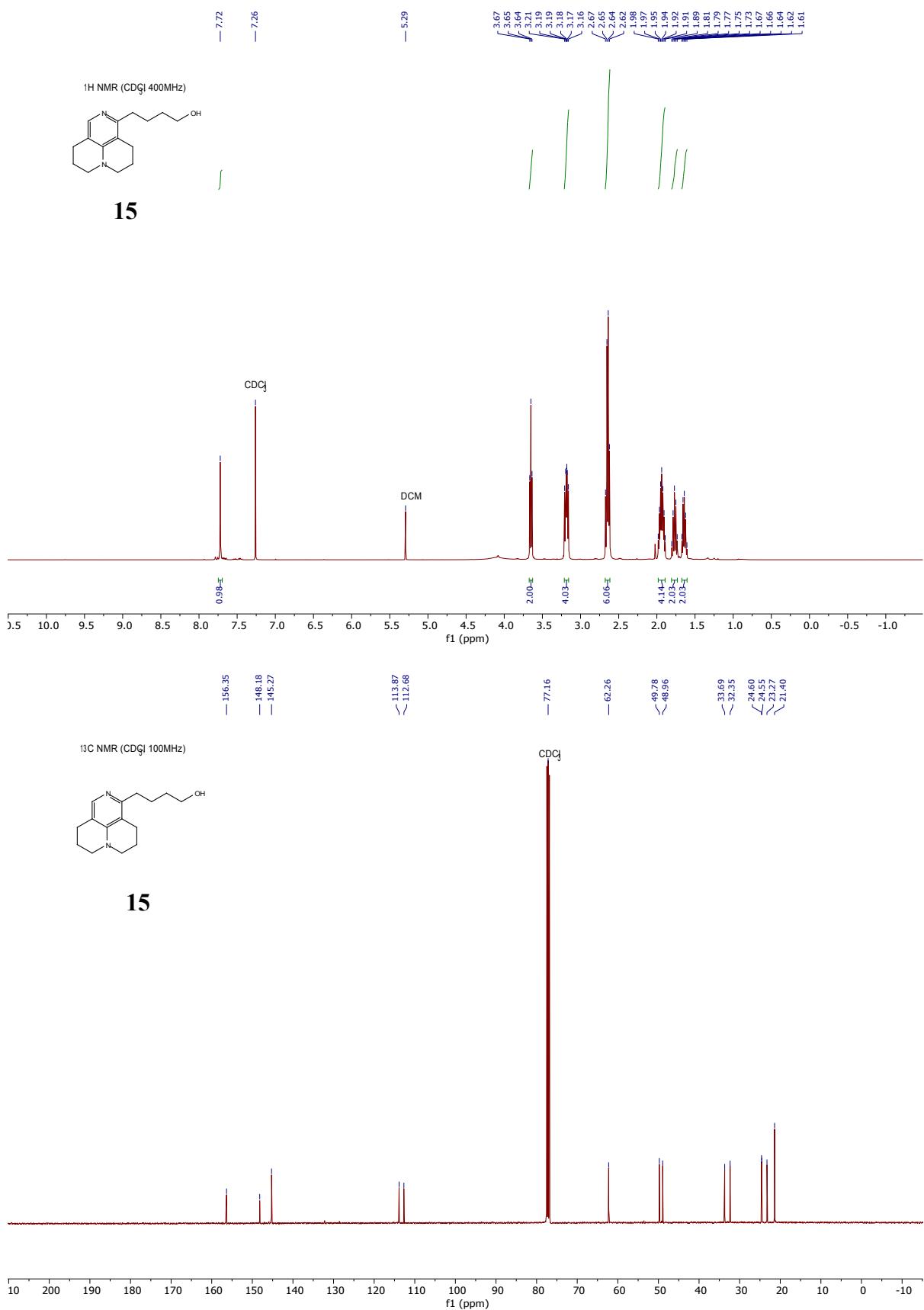


Figure S3. ¹H and ¹³C spectra of compound **15**

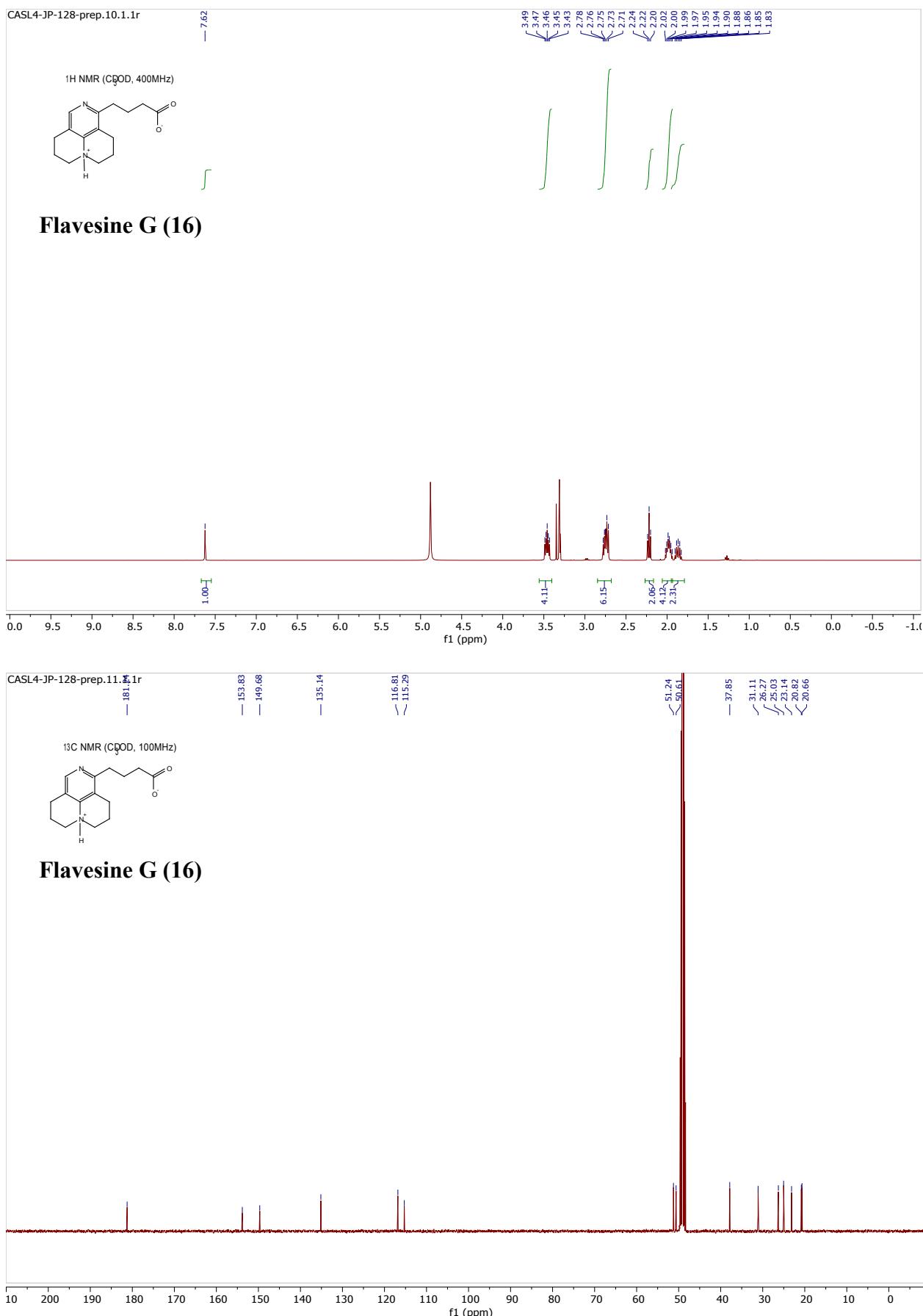


Figure S4. ¹H and ¹³C spectra of flavesine G (16) measured after chromatographic purification with an amine-containing mobile phase



Flavesine G (7)

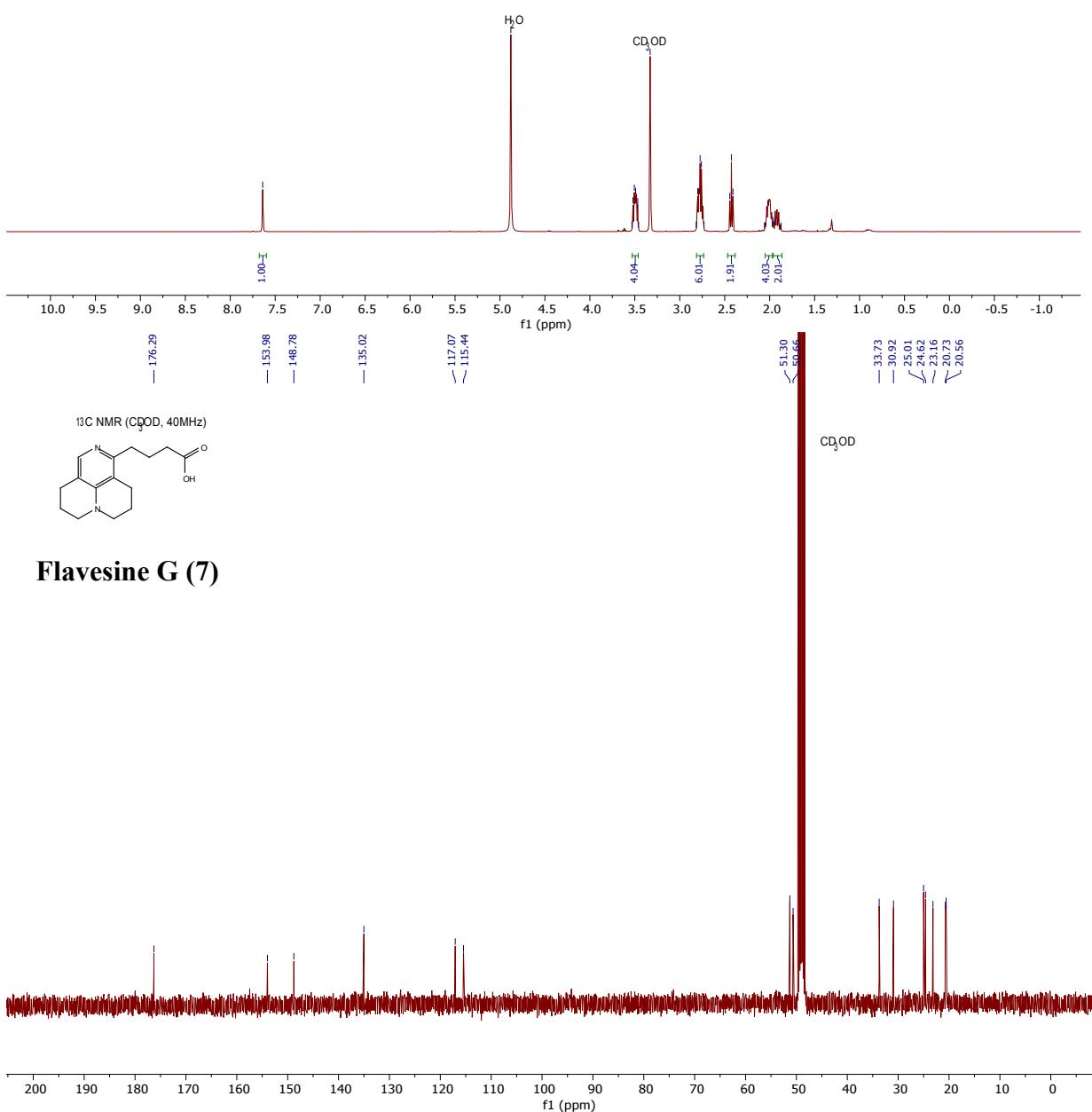
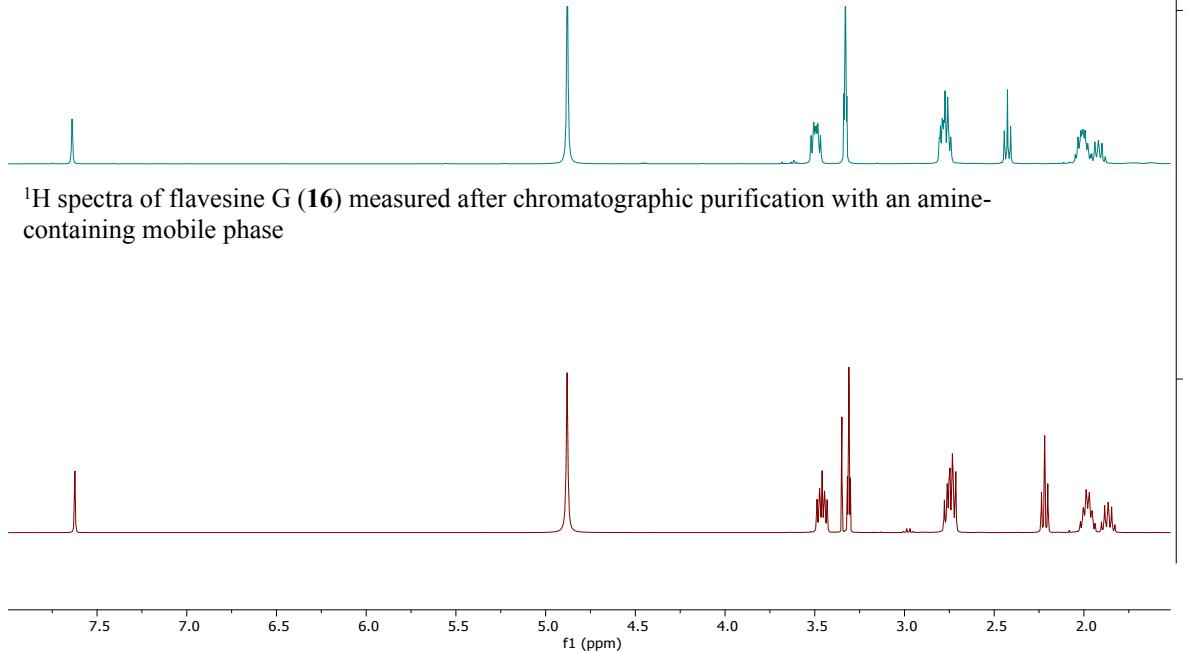


Figure S5. ¹H and ¹³C spectra of flavesine G (7) measured after chromatographic purification with an acid-containing mobile phase

¹H spectra of flavesine G (**7**) measured after chromatographic purification with an acid-containing mobile phase



¹³C spectra of flavesine G (**16**) measured after chromatographic purification with an amine-containing mobile phase

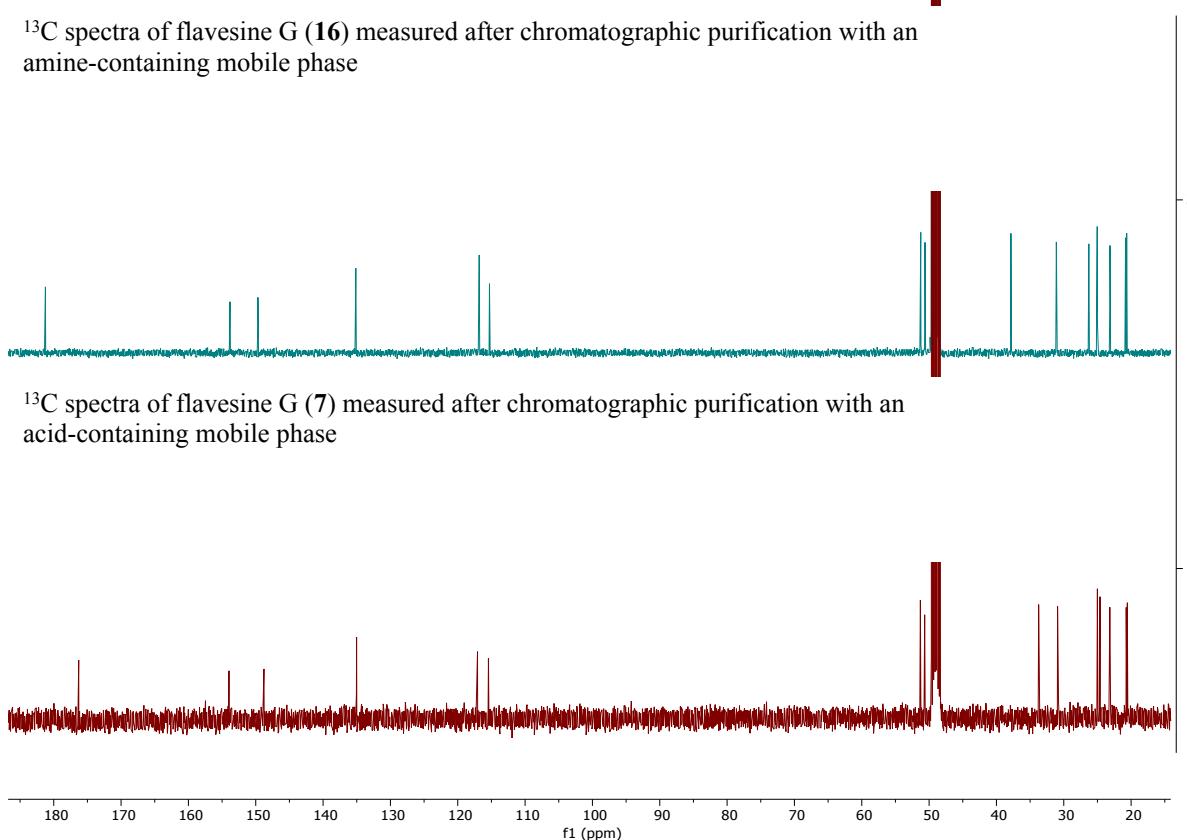


Figure S6. ¹H and ¹³C spectra comparison of flavesine G purified with an acidic or basic mobile phase

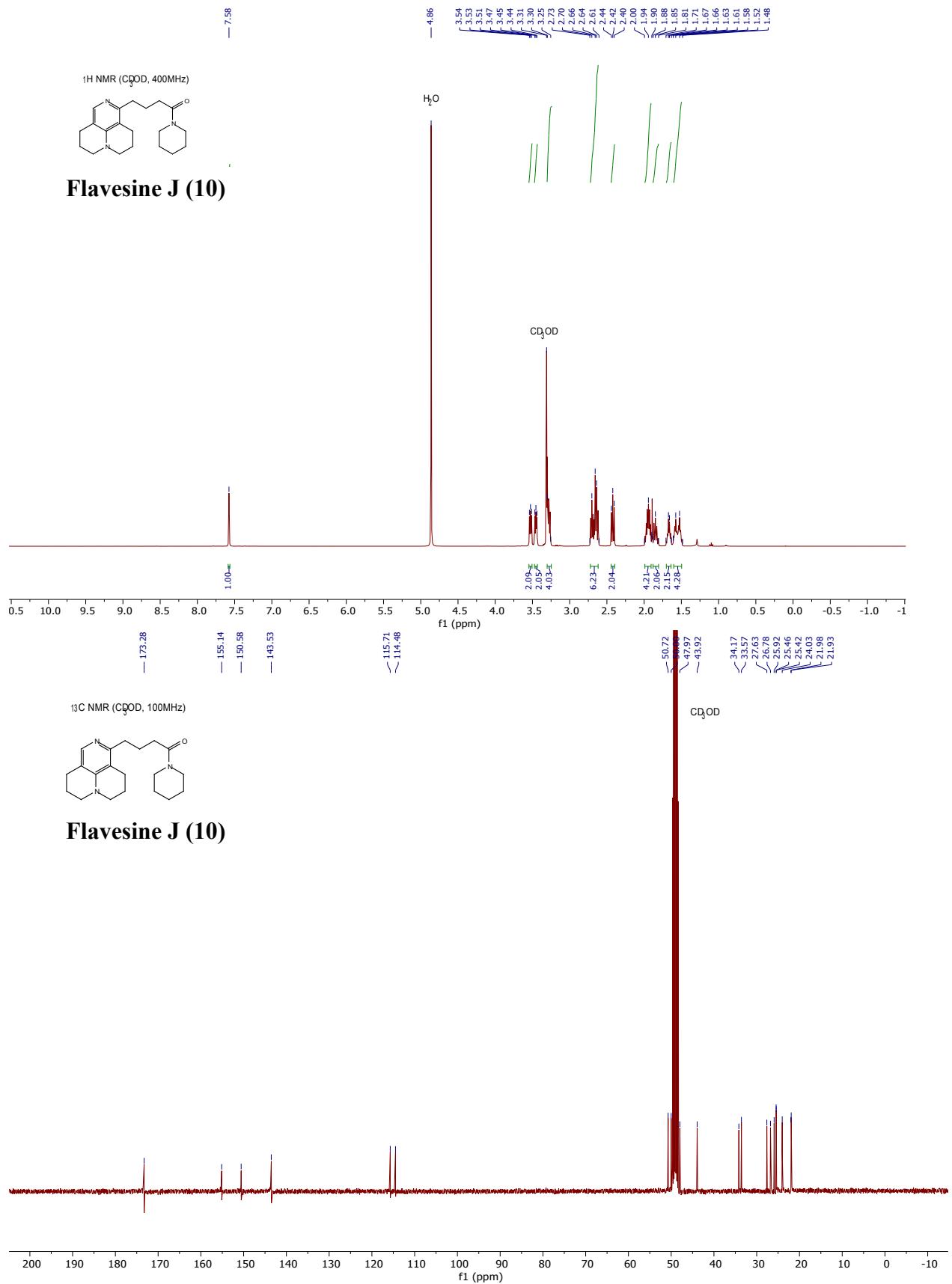


Figure S7. ^1H and ^{13}C spectra of flavesine J (**10**)