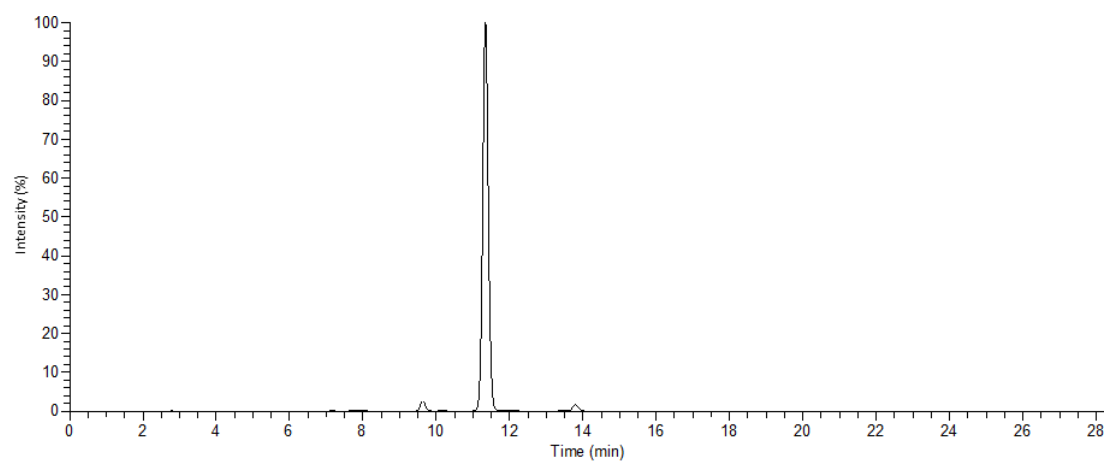
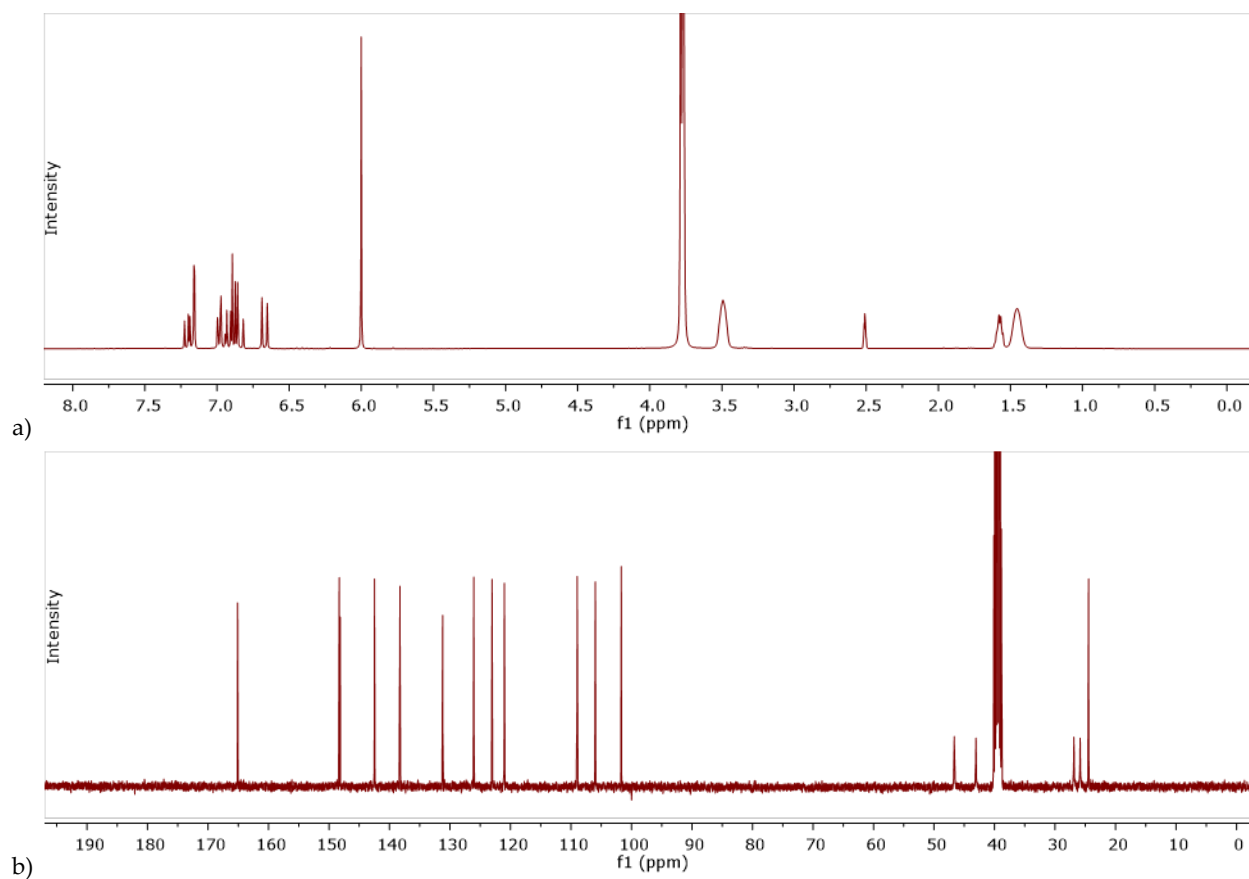


## Supplementary Material

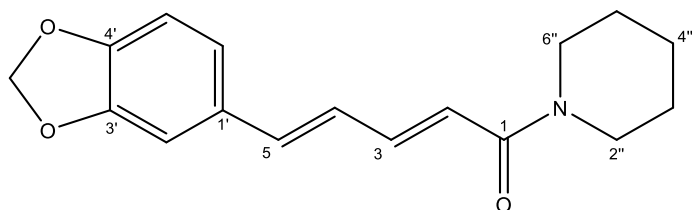


**Figure S1.** HPLC-DAD chromatogram for isolated piperine 5.

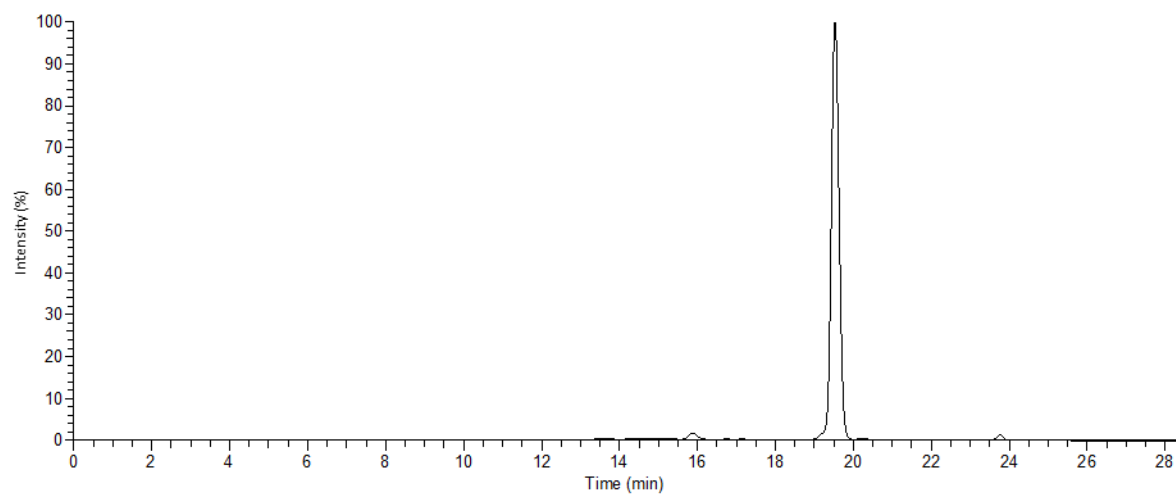


**Figure S2.** a)  $^1\text{H}$ -RMN b)  $^{13}\text{C}$ -RMN from isolated piperine 5.

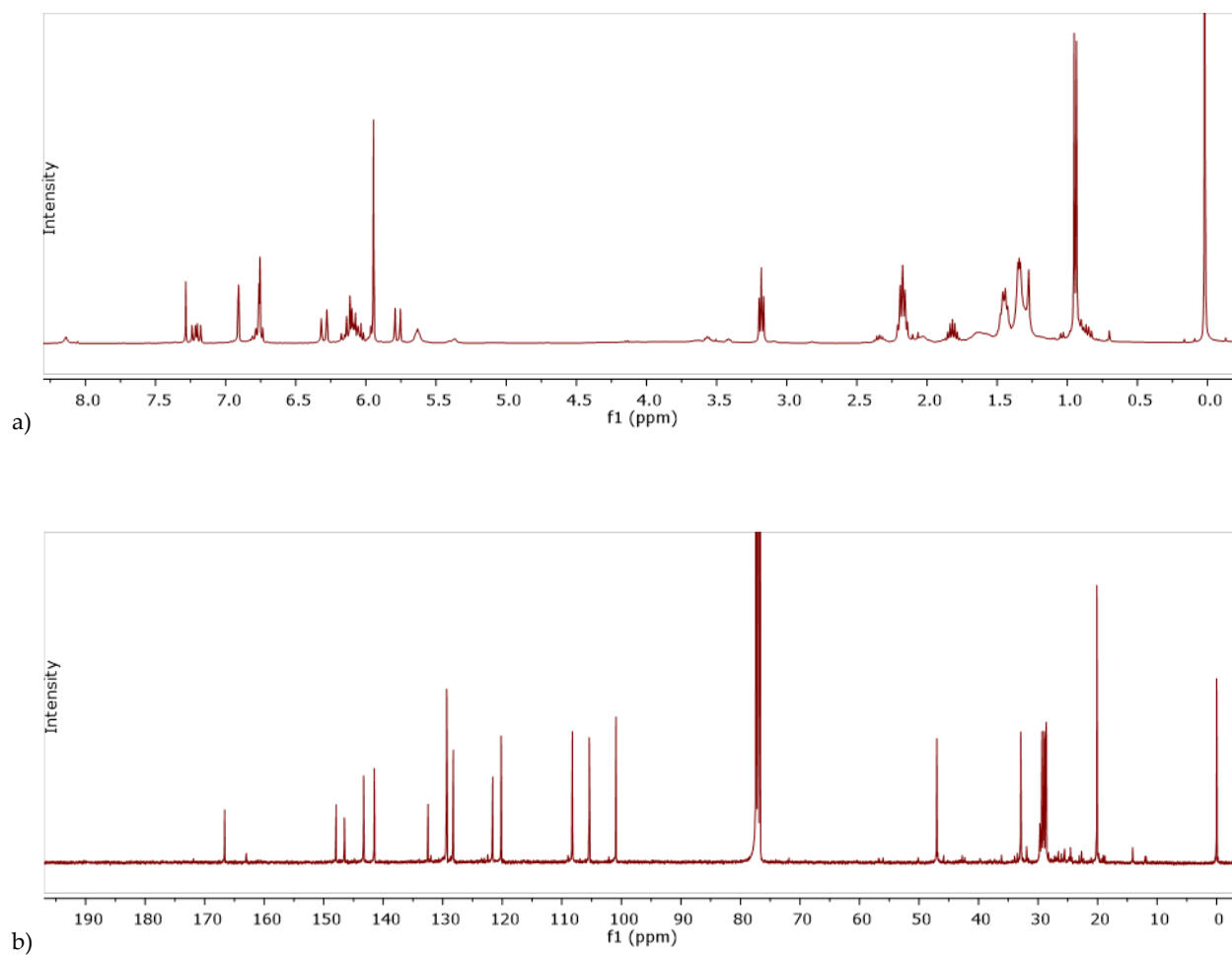
**Table S1.**  $^1\text{H}$  and  $^{13}\text{C}$  NMR shifts for isolated piperine **5** signals.



#C	$^{13}\text{C}$ $\delta$ (ppm)	$^1\text{H}$ $\delta$ (ppm)
1	165.01	
2	121.11	6.66 (d, J=14.6 Hz)
3	142.41	7.19 (dd, J=14.5, 10.5 Hz)
4	126.16	6.92 (dd, J=15.5, 10.6 Hz)
5	138.40	6.84 (d, J=15.6 Hz)
1', 3'	148.06	
2'	101.56	7.15 (d, J=1.9 Hz)
4'	106.14	
5'	131.34	6.88 (d, J=8.0 Hz)
6'	123.14	6.97 (dd, J=8.2, 1.8 Hz)
O-CH <sub>2</sub> -O	109.00	5.99 (s)
2''	43.25	3.49 (m)
3''	25.75	1.46 (m)
4''	24.26	1.56 (q, J=6.2 Hz)
5''	26.98	1.46 (m)
6''	46.68	3.49 (m)



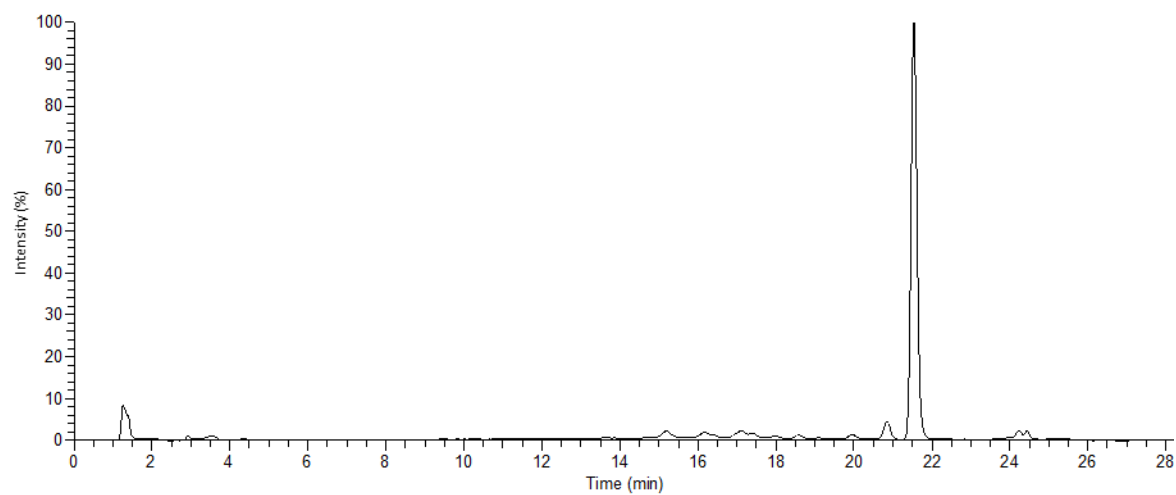
**Figure S3.** HPLC-DAD chromatogram for isolated guineensine **20**.



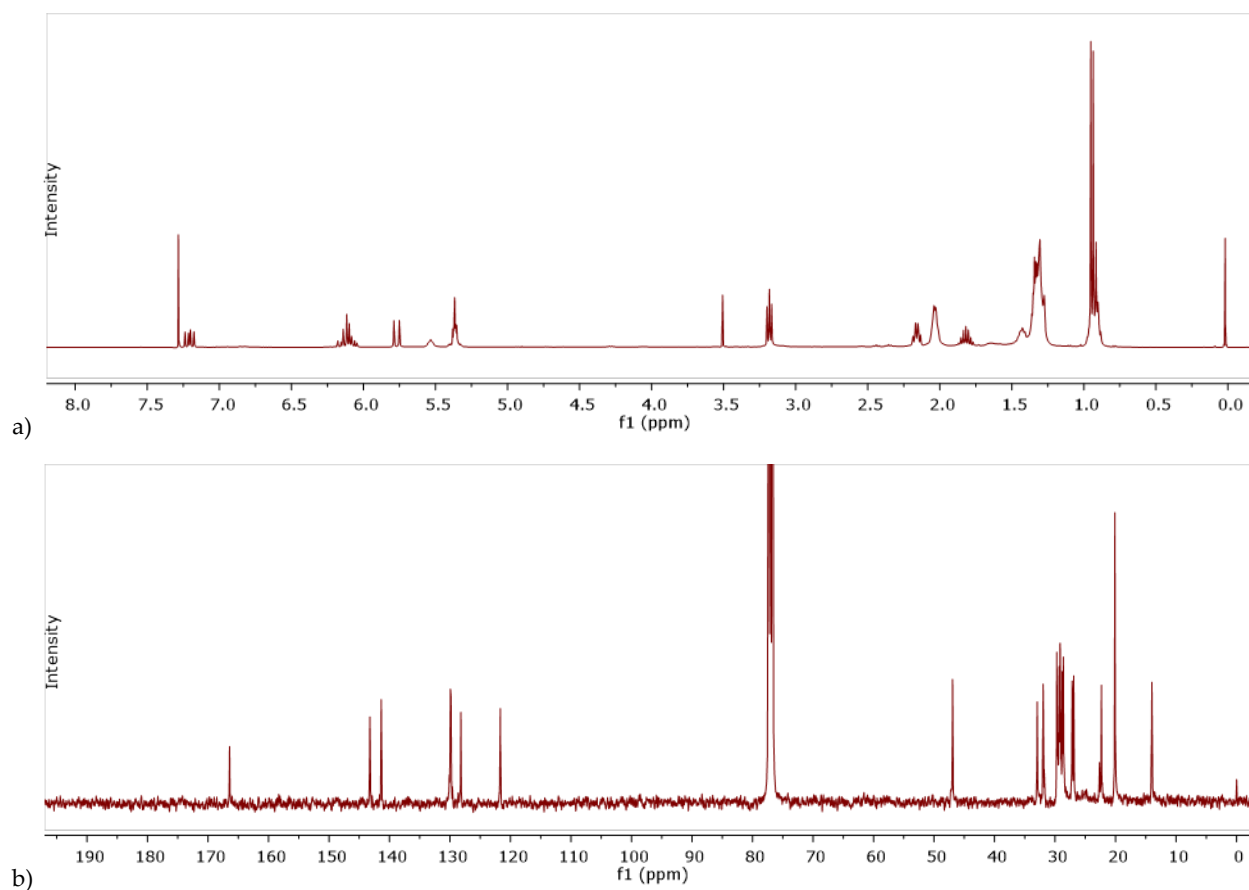
**Figure S4.** a)  $^1\text{H}$ -RMN b)  $^{13}\text{C}$ -RMN from isolated guineensine **20**.

**Table S2.** Shifts for  $^1\text{H}$  and  $^{13}\text{C}$  NMR analysis of guineensine **20** and retrofractamide B **14**

#C	Guineensine		Retrofractamide B	
	$^{13}\text{C}$ ( $\delta$ , ppm)	$^1\text{H}$ ( $\delta$ , ppm)	$^{13}\text{C}$ ( $\delta$ , ppm)	$^1\text{H}$ ( $\delta$ , ppm)
1	166.7		167.8	
2	121.6	5.77 (d, J=15.0 Hz)	121.7	5.95 (d, J=15.2 Hz)
3	141.5	7.18 (dd, J=15.0, 9.8 Hz)	140.7	7.13 (dd, J=15.1, 10.5 Hz)
4	129.4	5.99-6.15 (m)	128.3	6.05-6.23 (m)
5	143.3	5.99-6.15 (m)	142.5	6.05-6.23 (m)
6	32.9	2.17 (m)	32.5	2.22 (m)
7	29.0	1.45 (m)	28.7	1.51 (m)
8	28.7	1.32 (m)	28.3	1.51 (m)
9	28.9	1.32 (m)	32.3	2.22 (m)
10	29.3	1.45 (m)	128.5	6.05-6.23 (m)
11	32.8	2.17 (m)	129.6	6.32 (d, J=15.8 Hz)
12	129.4	5.99-6.15 (m)		
13	128.3	6.30 (d, J=15.8 Hz)		
1'	132.5		132.4	
2'	105.4	6.91 (d, J=1.4 Hz)	104.8	6.92 (d, J=1.6 Hz)
3'	147.9		148.0	
4'	146.5		146.6	
5'	108.2	6.71-6.78 (m)	107.6	6.73 (d, J=8.0 Hz)
6'	120.2	6.71-6.78 (m)	119.9	6.78 (dd, J=8.0, 1.7 Hz)
-OCH <sub>2</sub> O-	100.9	5.95 (s)	100.8	5.92 (s)
1''	47.0	3.16 (t, J=6.5 Hz)	46.6	3.08 (d, J = 6.9 Hz)
2''	28.6	1.82 (m)	28.1	1.81 (m)
3'',4''	20.1	0.92 (d, J=6.7 Hz)	19.1	0.94 (d, J=6.7 Hz)



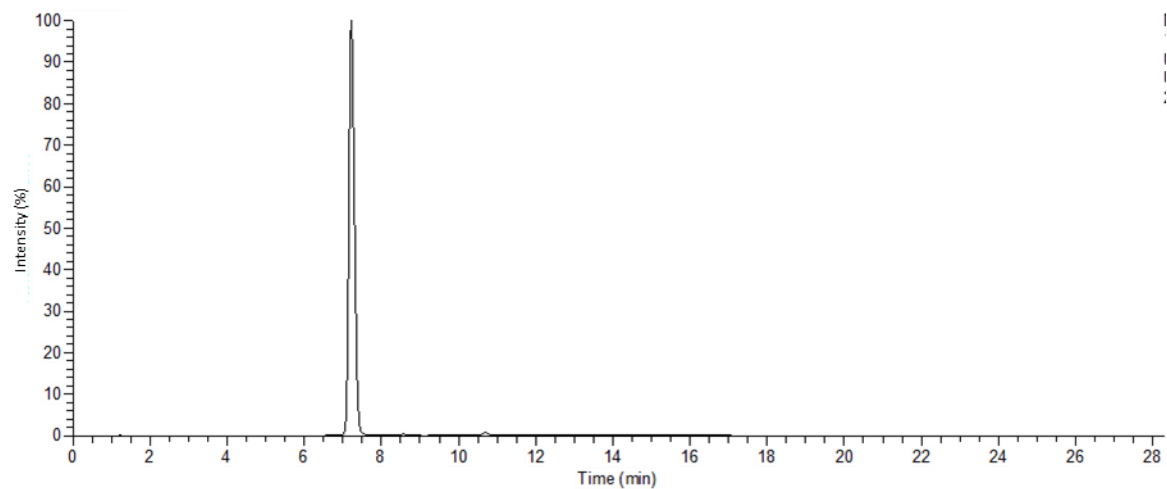
**Figure S5.** UPLC-DAD chromatogram from isolated (2*E*,4*E*,12*Z*)-*N*-isobutyl-octadeca-2,4,12-trienamide **25**.



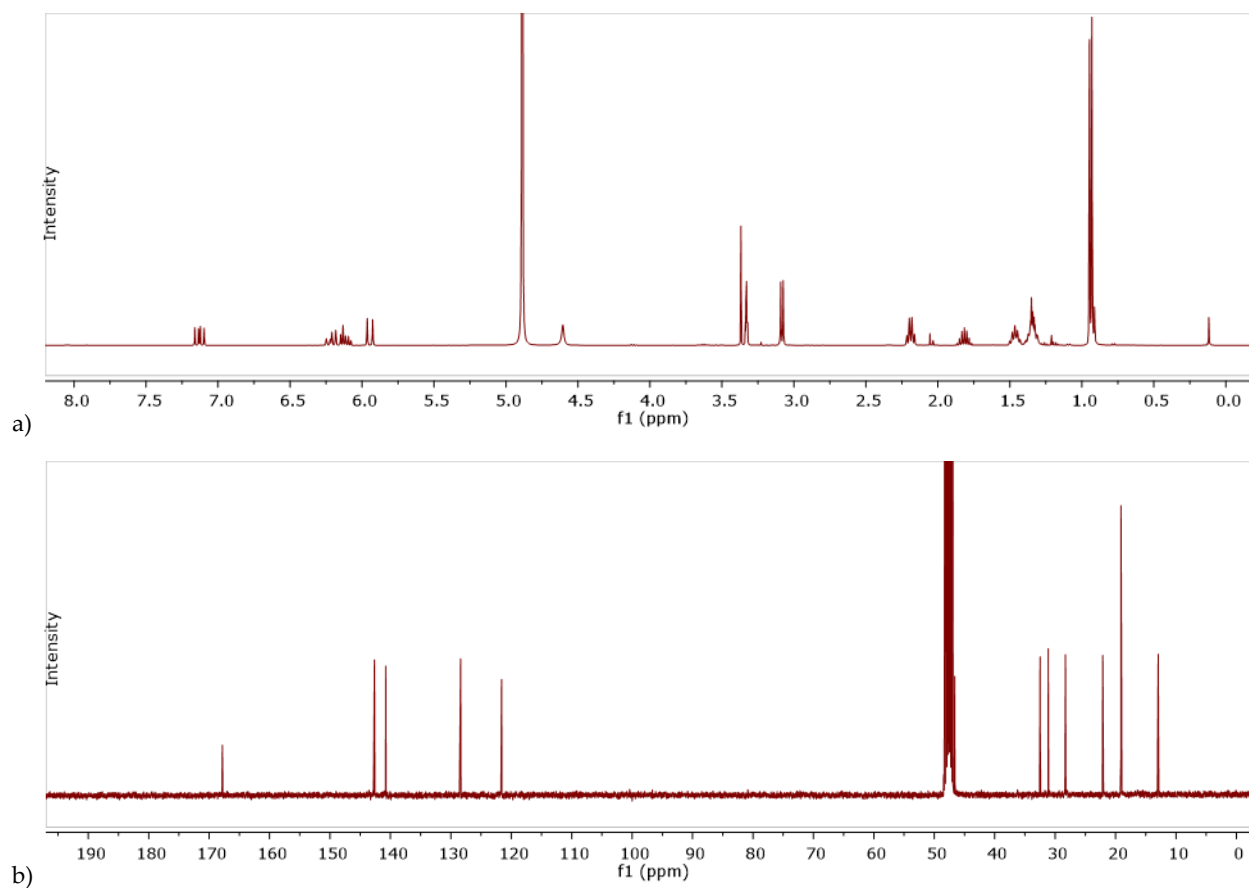
**Figure S6.** a) <sup>1</sup>H-RMN b) <sup>13</sup>C-RMN from isolated (2*E*,4*E*,12*Z*)-*N*-isobutyl-octadeca-2,4,12-trienamide **25**.

**Table S3.** Shifts for  $^1\text{H}$  and  $^{13}\text{C}$  NMR of pellitorine **11** and (2*E*,4*E*,12*Z*)-*N*-isobutyl-octadeca-2,4,12-trienamide **25**

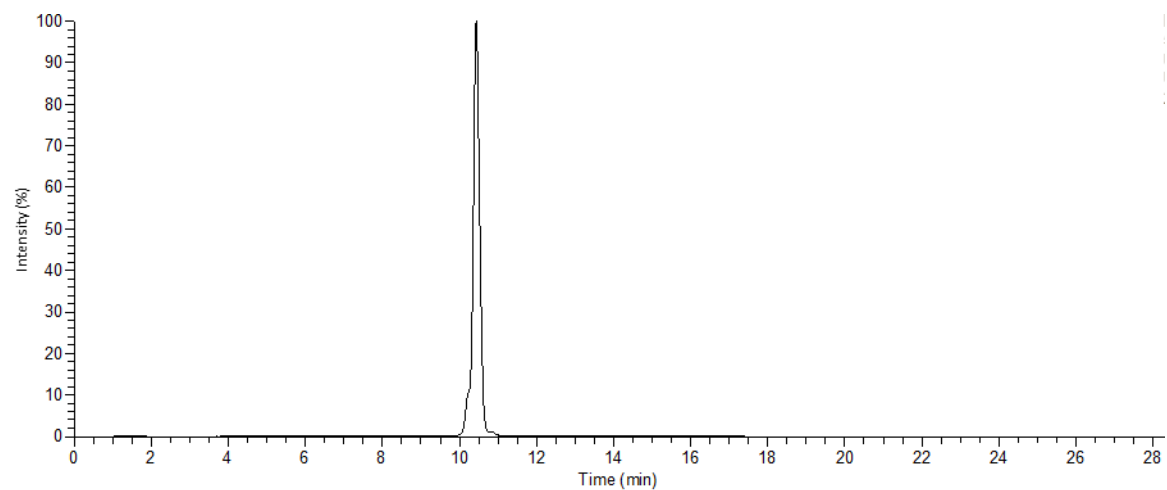
<b>(2<i>E</i>,4<i>E</i>,12<i>Z</i>)-<i>N</i>-isobutyl-octadeca- 2,4,12-trienamide</b>			<b>Pellitorine</b>	
<b>#C</b>	<b><math>^{13}\text{C}</math> (<math>\delta</math>, ppm)</b>	<b><math>^1\text{H}</math> (<math>\delta</math>, ppm)</b>	<b><math>^{13}\text{C}</math> (<math>\delta</math>, ppm)</b>	<b><math>^1\text{H}</math> (<math>\delta</math>, ppm)</b>
1	166.4		167.8	
2	121.7	5.77 (d, $J=15.0$ Hz)	121.6	5.94 (d, $J=15.1$ Hz)
3	143.3	7.21 (dd, $J=14.9, 9.9$ Hz)	142.6	7.13 (dd, $J=15.1, 10.4$ Hz)
4	128.2	6.12 (m)	128.4	6.15 (m)
5	141.4	6.12 (m)	140.8	6.15 (m)
6	33.0	2.16 (q, $J=7.7, 7.2$ Hz)	32.5	2.19 (m)
7	28.8	1.43 (m)	28.4	1.34 (m)
8	29.7	1.26-1.36 (m)	31.1	1.34 (m)
9	29.3	1.26-1.36 (m)	22.1	1.47 (m)
10	29.2	1.26-1.36 (m)	12.9	0.93 (m)
11	26.9	2.03 (m)		
12	129.8	5.36 (m)		
13	129.9	5.36 (m)		
14	27.2	2.03 (m)		
15	29.1 <sup>a</sup>	1.26-1.36 (m)		
16	32.0	1.26-1.36 (m)		
17	22.3	1.26-1.36 (m)		
18	14.0	0.91 (m)		
1'	46.9	3.18 (dd, $J=6.9, 6.1$ Hz)	46.6	3.08 (d, $J=6.8$ Hz)
2'	28.6	1.82 (m)	28.3	1.82 (m)
3',4'	20.1	0.91 (d, $J=6.7$ )	19.1	0.94 (d, $J=6.7$ Hz)



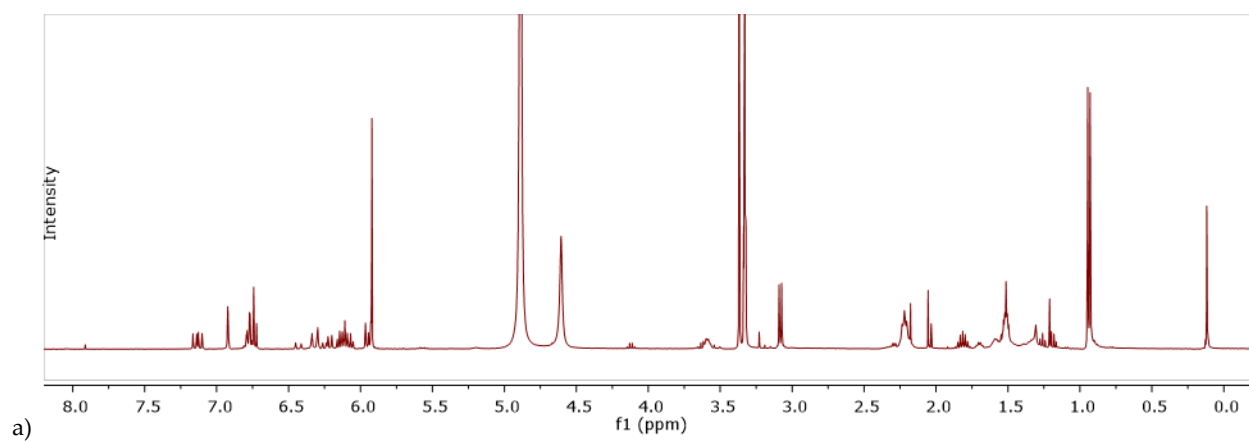
**Figure S7.** UPLC-DAD chromatogram from isolated pellitorine **11**.



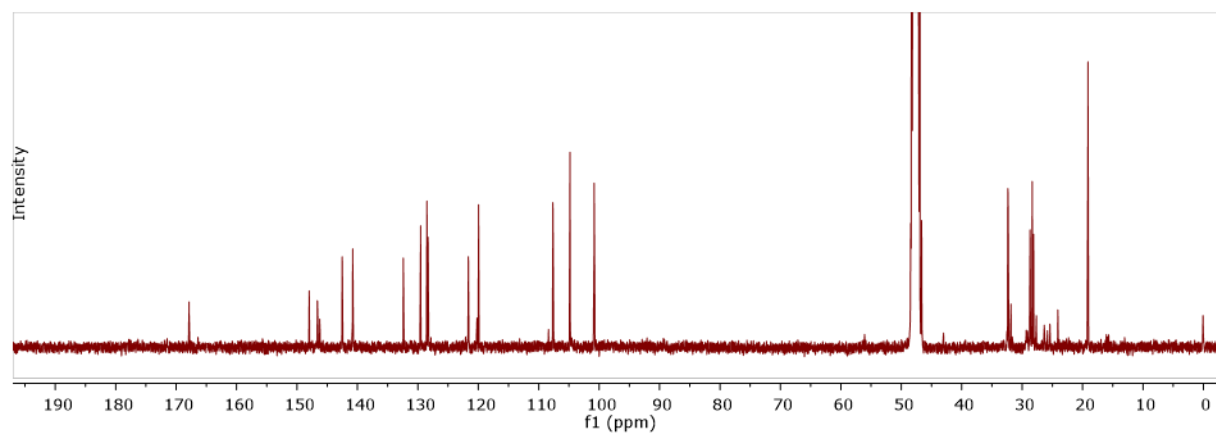
**Figure S8.** a)  $^1\text{H}$ -RMN b)  $^{13}\text{C}$ -RMN from isolated pellitorine **11**.



**Figure S9.** UPLC-DAD chromatogram from isolated retrofractamide B **14**.



a)



b)

**Figure S10.** a) <sup>1</sup>H-RMN b) <sup>13</sup>C-RMN from isolated retrofractamide B **14**.