Chemical constituents of the leavesof *Anthonotha macrophylla*(Leguminosae)

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Abstract: The present study deals with the isolation and the characterization of the chemical constituents from the leaves of *Anthonotha macrophylla* (Leguminosae). Using various chromatographic techniques (TLC, CC, HPLC), the methanolic extract of the leaves of *Anthonotha macrophylla* yielded one new alkaloid (**1**) as well as six known compounds amongst which an alkane (**2**), isolated for the first time from a natural product, an ester of fatty acid (**3**), two isocoumarines (**4–5**), a sterol (**6**) and a disaccharide (**7**). Their structures were elucidated using spectroscopic technics including extensive 1-D and 2-D NMR, HR-SM experiments.

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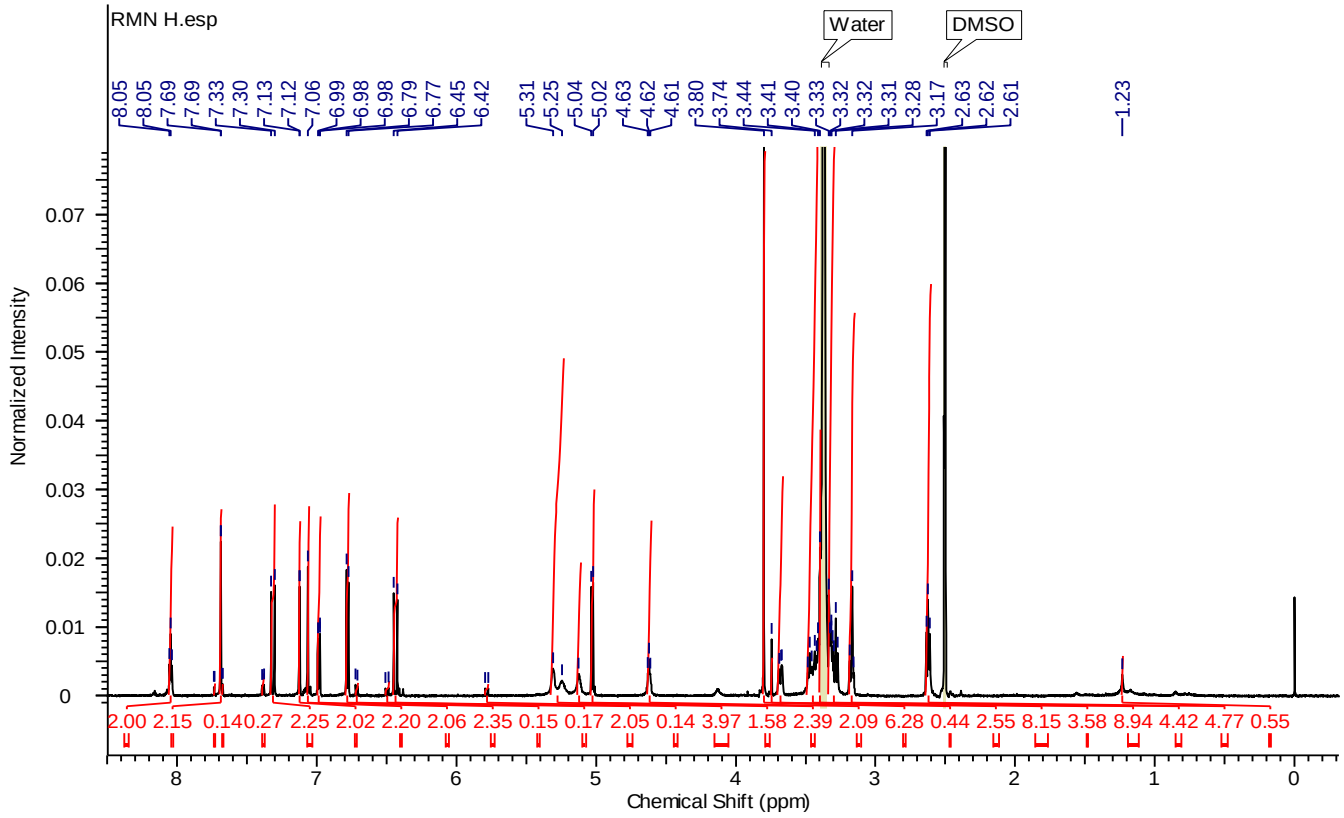


Figure S1: ^{1}H NMR spectraof compound **1**

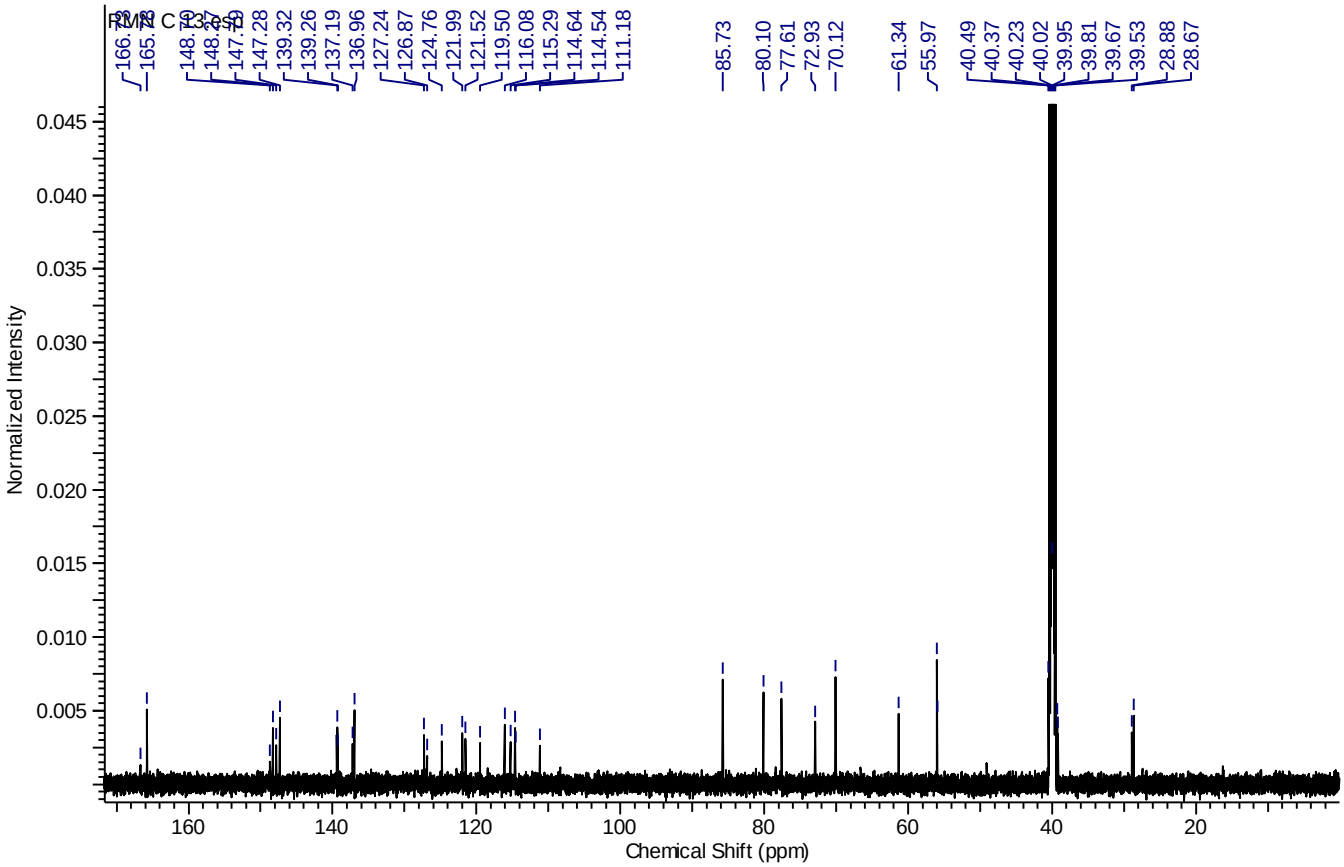


Figure S2: ^{13}C NMR spectra of compound **1**

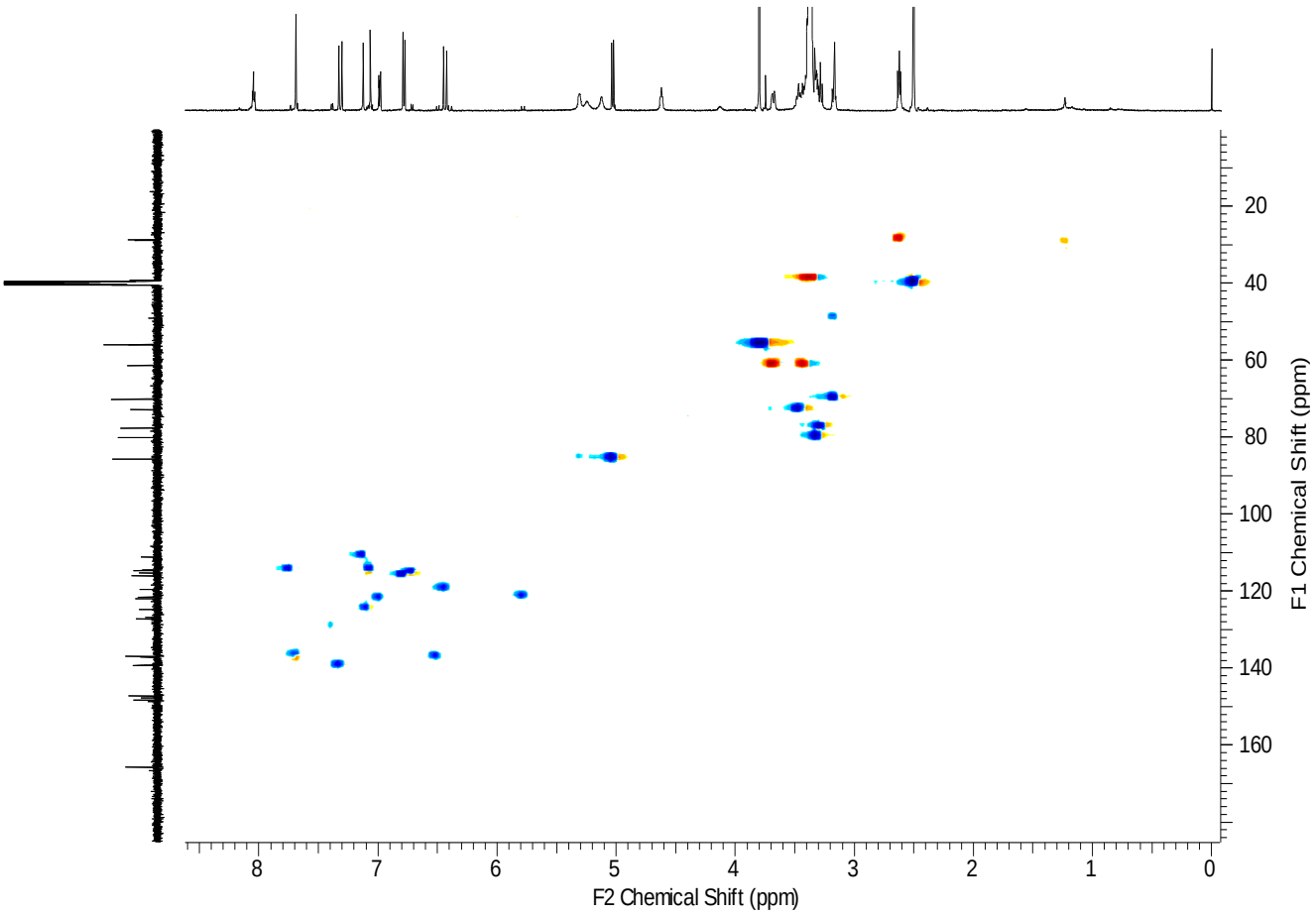


Figure S3:HSQC spectra of compound **1**

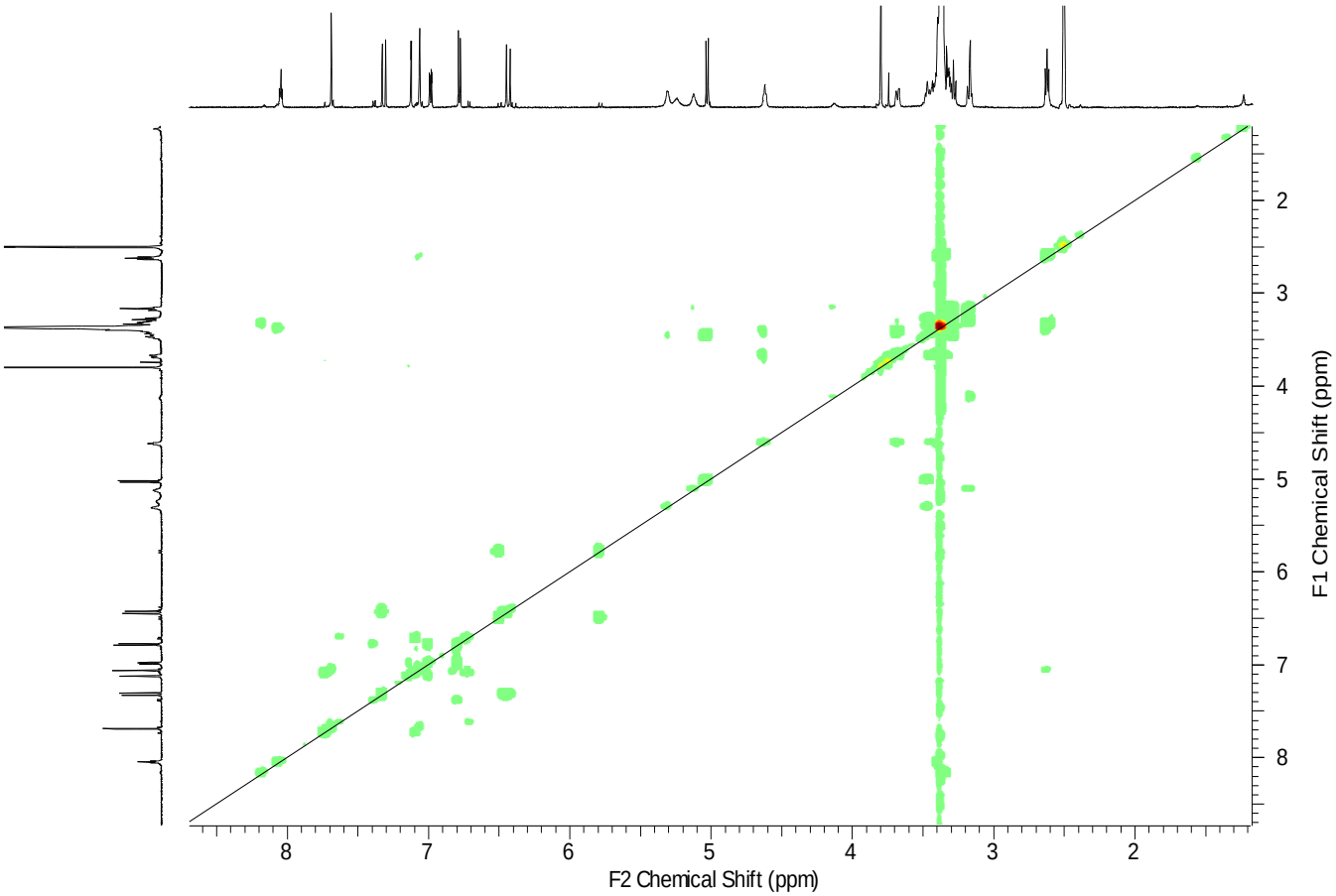


Figure S4: COSY spectra of compound **1**

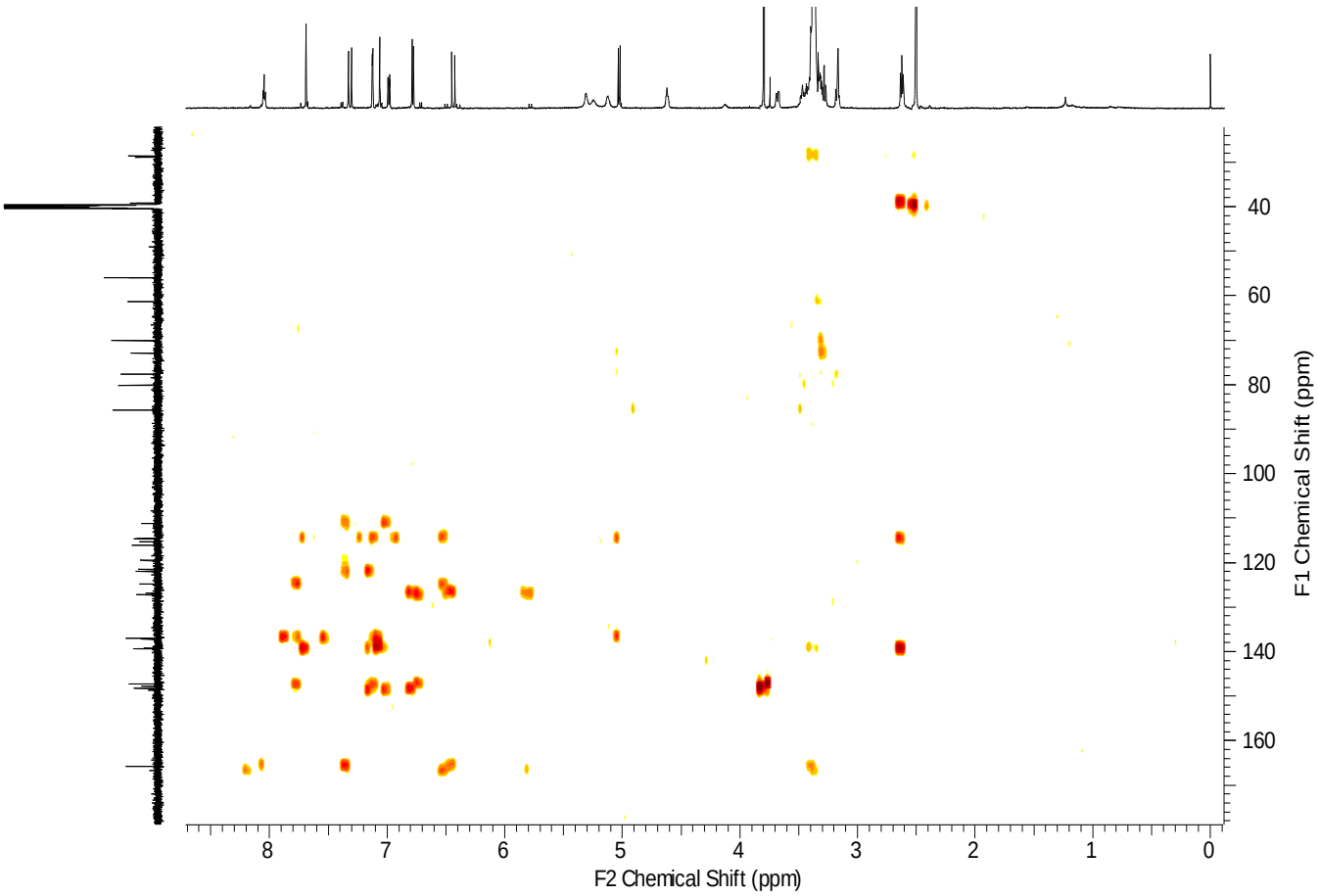


Figure S5: HMBC spectra of compound **1**

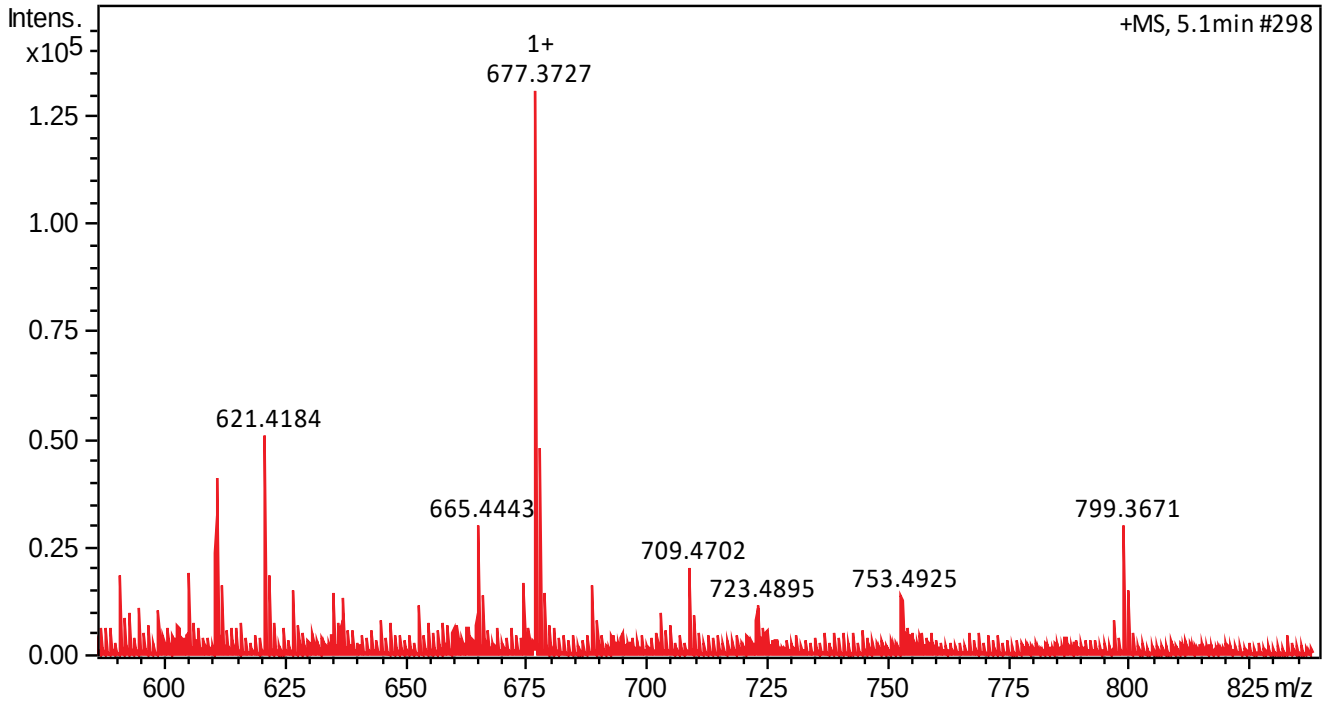


Figure S6: HR-ESI (+) mass spectraof compound **1**

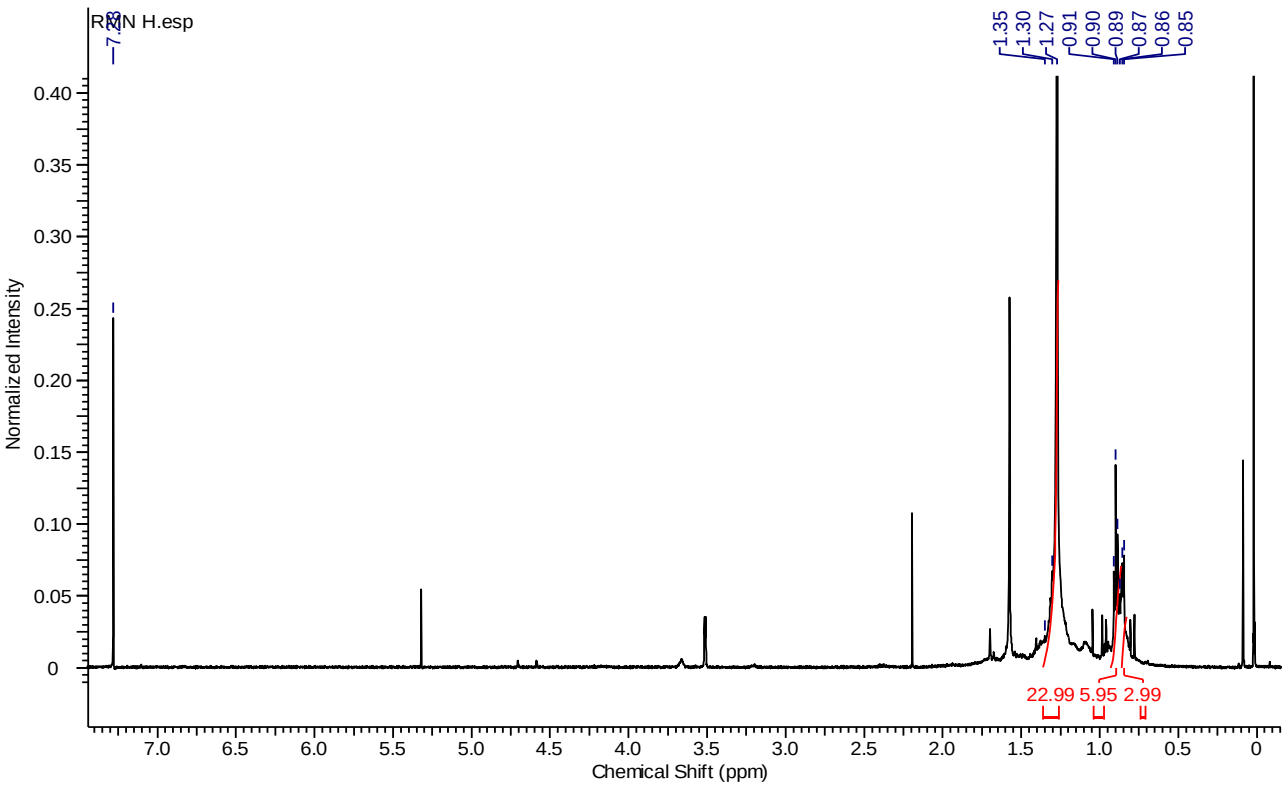


Figure S7: 1H NMR spectra of compound **2**

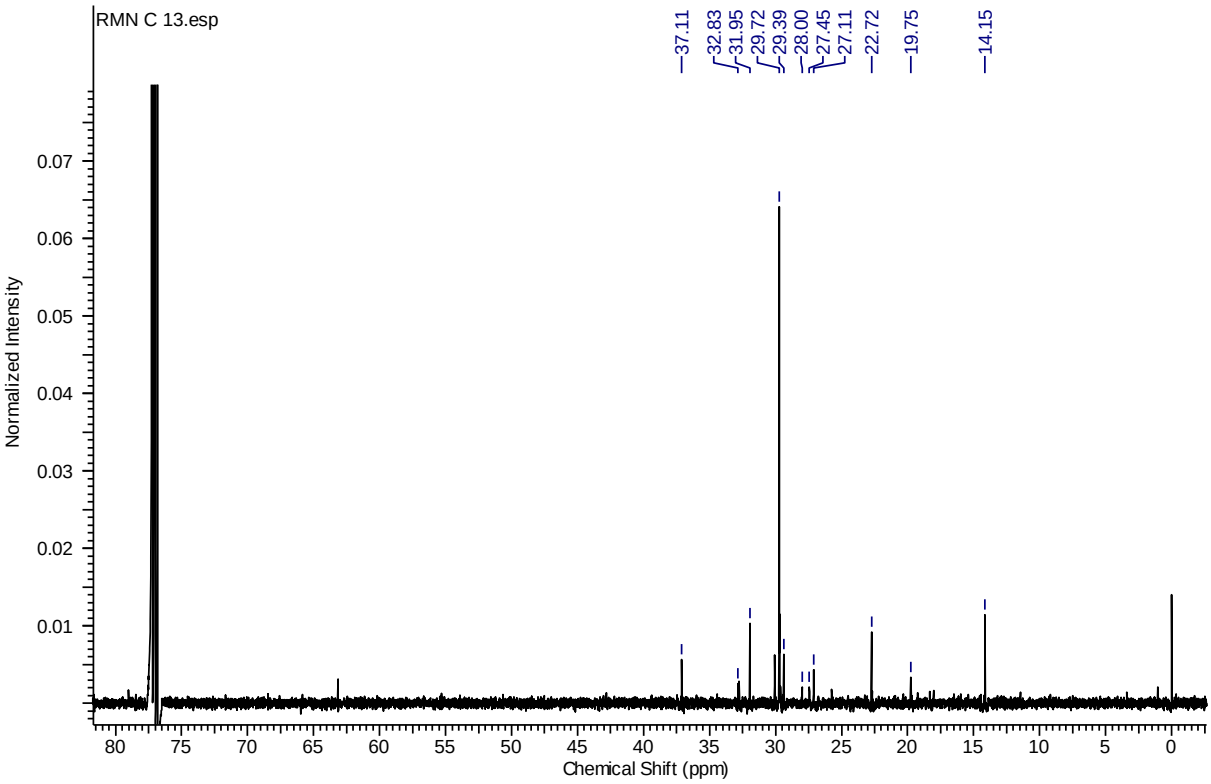


Figure S8: 13C NMR spectra of compound **2**

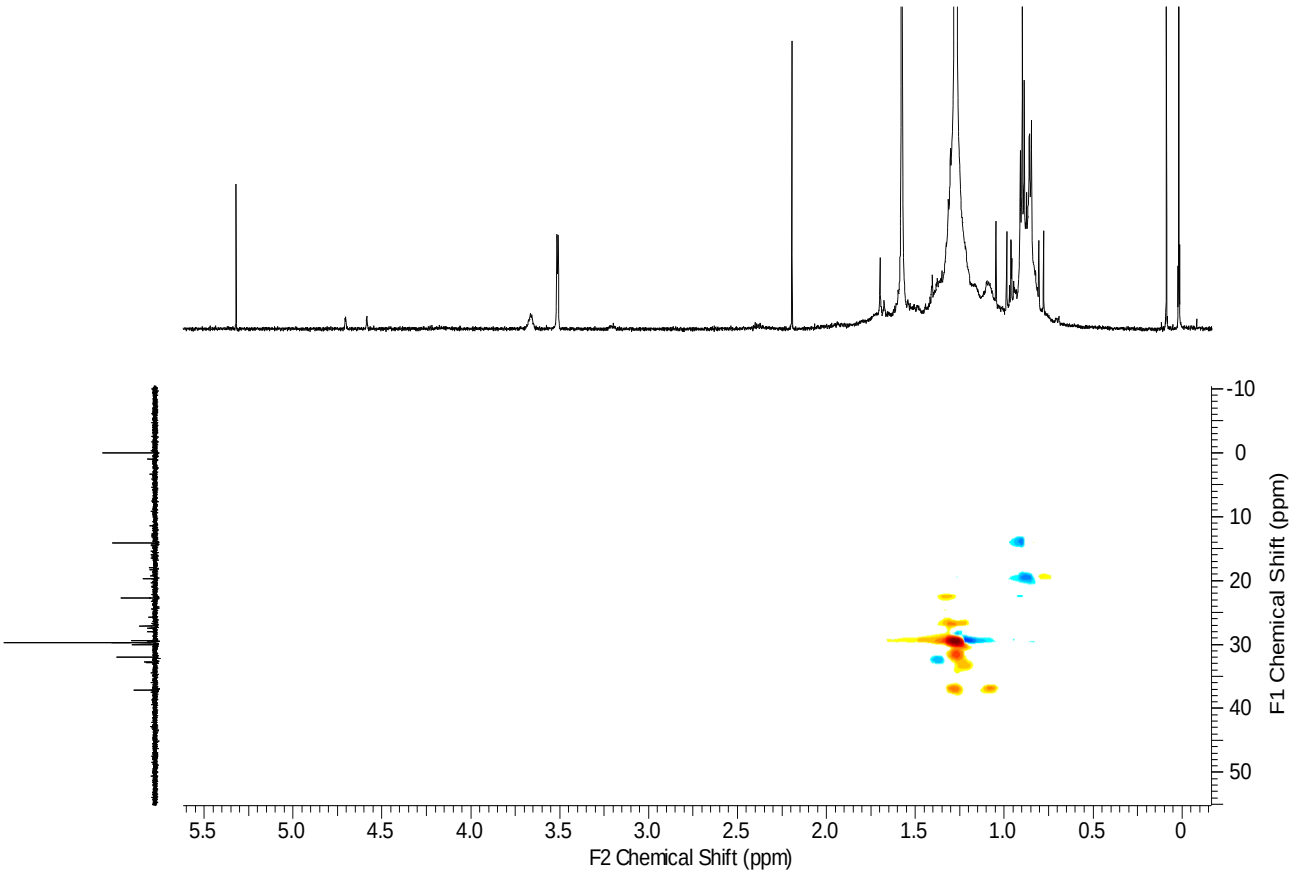


Figure S9: HSQC spectraof compound **2**

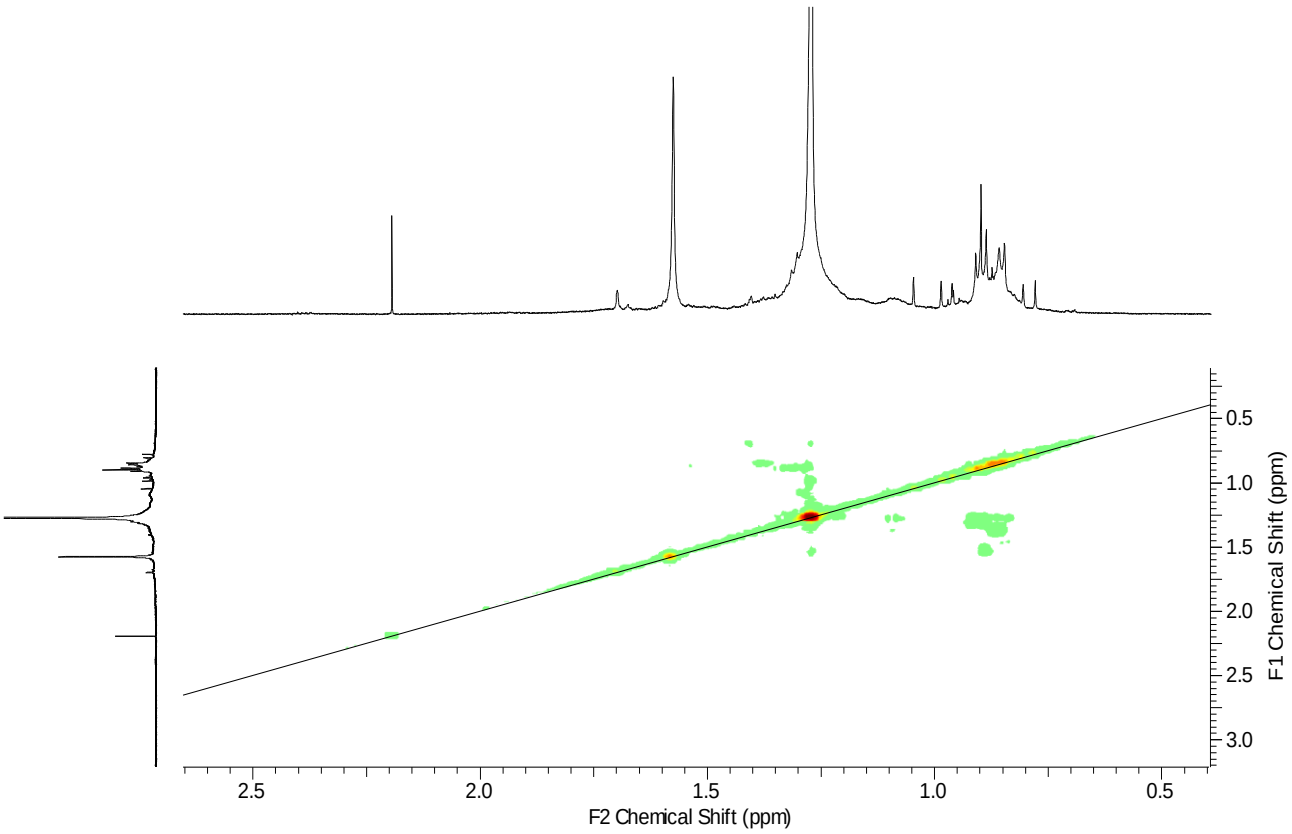


Figure S10: COSY spectra ofcompound **2**

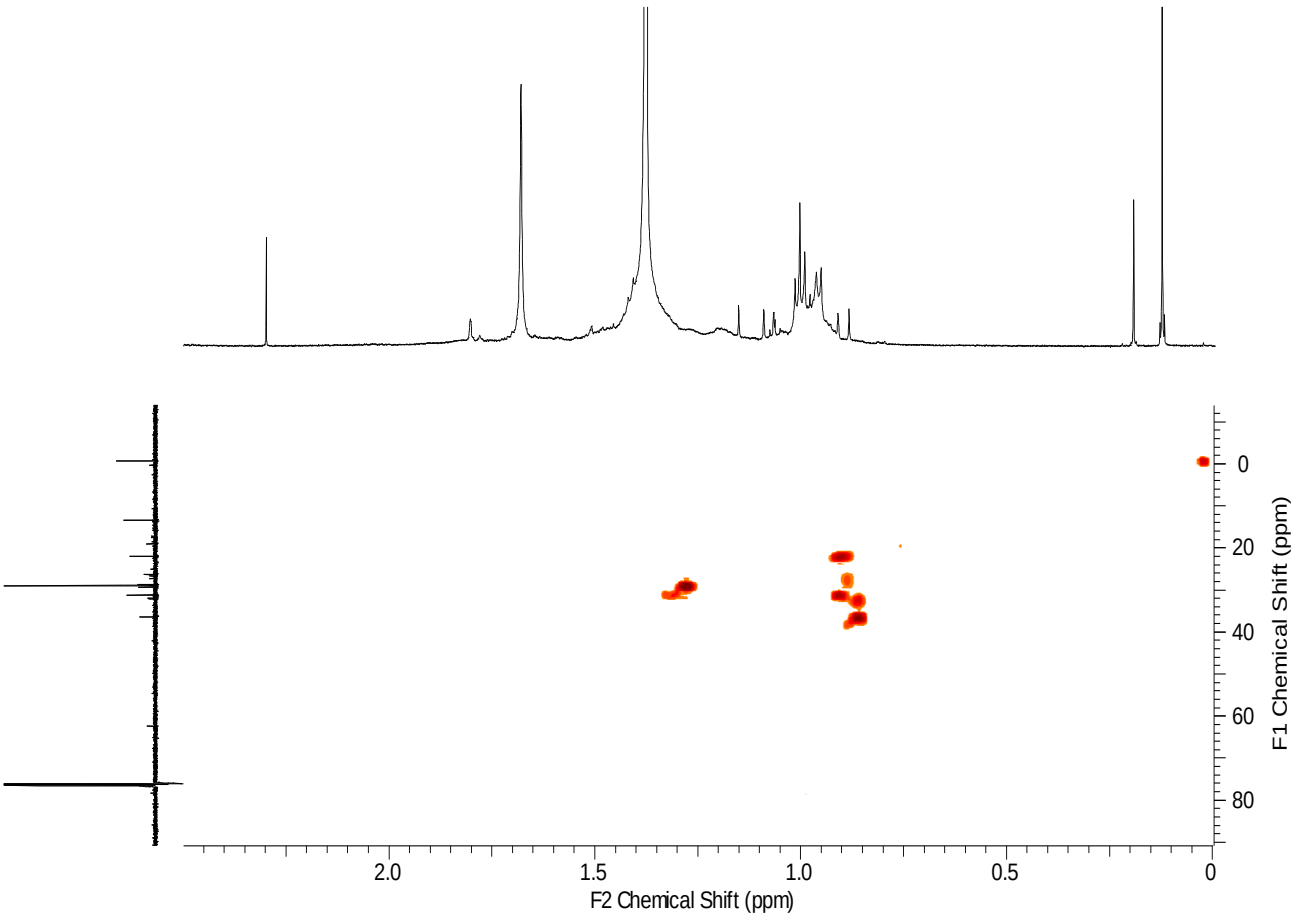


Figure S11: HMBC spectra ofcompound **2**

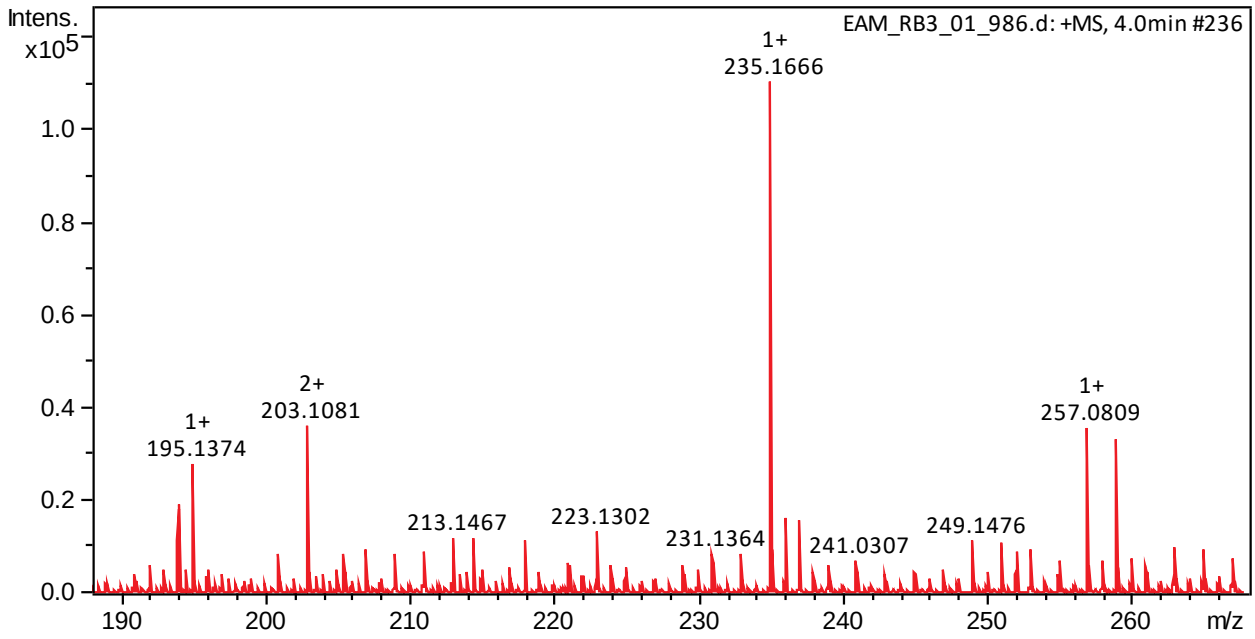
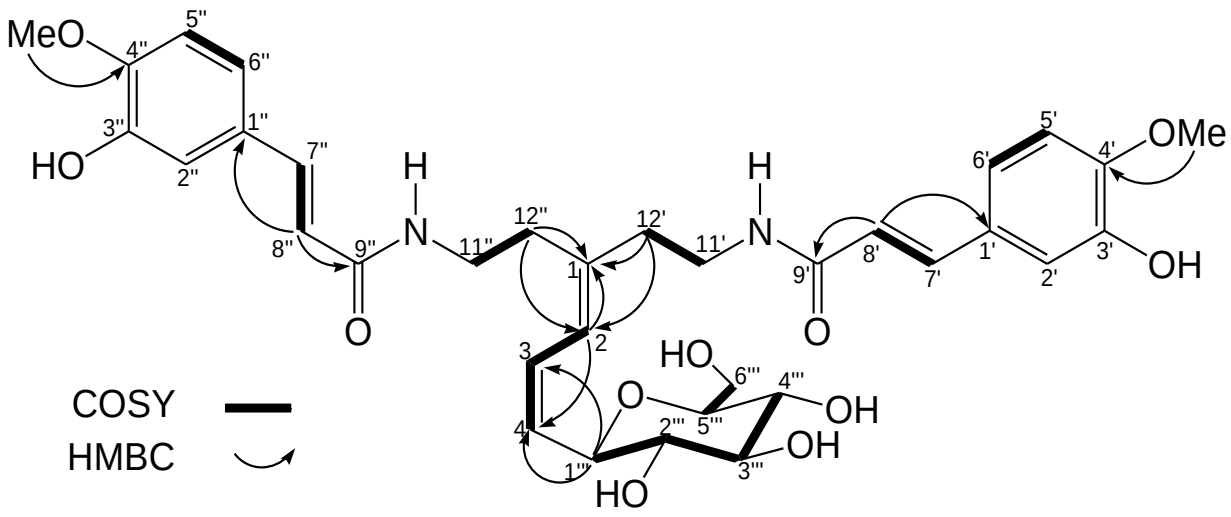


Figure S12: HR-ESI (+) mass spectraofcompound **2**



1

Figure S13: Important HMBC and COSY correlationsofcompound **1**

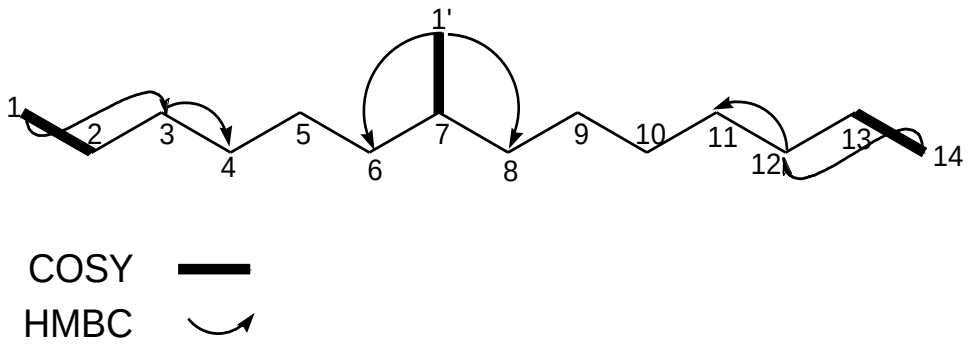


Figure S14: Important HMBC and COSY correlationsofcompound **2**

TableS1: ^{1}H (600 MHz) and ^{13}C (150 MHz) NMR dataofcompound **1** in DMSO.

N°	δ_H ppm (multi., *J Hz*)	$\delta_C$ppm	DEPT
1	—	139.2	CH
2	7.69 (d, *J* = 10.1Hz)	114.5	CH
3	7.06 (dd, *J* = 6.7 and 10.1 Hz)	114.5	CH
4	7.67 (dd, *J* = 1.5 and 6.7 Hz)	136.9	CH
1′	—	126.8	C
2′	7.13 (d,*J* = 1.8 Hz)	111.1	CH
3′	—	147.7	C
4′	—	148.2	C
5′	6.79 (d, *J* = 8.2 Hz)	116.0	CH
6′	6.98 (dd, *J* = 1.8 and 8.2Hz)	121.9	CH
7′	7.30 (d, *J* = 15.4Hz)	139.3	CH
8′	6.42 (d, *J* = 15.4 Hz)	119.5	CH
9′	—	165.7	C
9′– NH	8.04 (t, *J* = 5.6 Hz)	—	—
11′	3.41 (m)	39.1	CH_2
12′	2.63 (t, *J* = 7.5 Hz)	28.6	CH_2
1″	—	127.1	C
2″	7.74 (d,*J* = 1.8 Hz)	114.6	CH
3″	—	148.6	C
4″	—	147.2	C
5″	6.72 (d, *J* = 8.2 Hz)	115.2	CH
6″	7.08 (dd, *J* = 1.8and 8.2 Hz)	124.7	CH
7″	7.33 (d, *J* = 15.4 Hz)	139.3	CH
8″	6.45 (d, *J* = 15.4 Hz)	121.5	CH
9″	—	166.7	C
9″–NH	8.06 (t, *J* = 5.6 Hz)	—	—
11″	3.40 (m)	39.2	CH_2
12″	2.61 (t, *J* = 7.5 Hz)	28.8	CH_2
1‴	5.04 (dd, *J* = 1.5 and 9.0 Hz)	85.7	CH
2‴	3.47 (dd, *J* = 9.0 and 3.0 Hz)	72.9	CH
3‴	3.30 (dd, *J* = 1.8 and 3.0 Hz)	77.6	CH
4‴	3.17 (dd, *J* =1.8 and 6.7 Hz)	70.1	CH
5‴	3.32 (m)	80.1	CH
6‴	3.44 (dd, *J* = 2.6 and11.6 Hz)	61.3	CH_2
	3.67 (dd, *J* = 2.6 and 11.6 Hz)		
4′ – OMe	3.80 (s)	55.9	—
4″– OMe	3.80 (s)	55.9	—

TableS2: ^{1}H (600 MHz) and ^{13}C (150 MHz) NMR data of compound **2** in $CDCl_3$.

N°	δ_H ppm (multi., *J Hz*)	$\delta_C$ppm	DEPT
1	0.91 (t, *J* = 6.7Hz)	14.1	CH_3
2	1.30	22.7	CH_2
3	1.27	31.9	CH_2
4	1.27	29.7	CH_2
5	1.27	27.1	CH_2
6	1.27	37.1	CH_2
7	1.35	32.8	CH
8	1.27	37.1	CH_2
9	1.27	27.4	CH_2
10	1.27	28.0	CH_2
11	1.27	29.3	CH_2
12	1.27	31.9	CH_2
13	1.30	22.7	CH_2
14	0.91 (t, *J* = 6.7 Hz)	14.1	CH_3
1′	0.86 (t, *J* = 6.7 Hz)	19.7	CH_3