# **Supplementary material**

## Cytotoxic activity (screening)

Table S1. Cytotoxic activity of the A. amadelpha extract and compounds 1-3 and 5

	Cytotoxic activity								
	MCF-7	DU-145	HeLa	Panc-1	Skov-3				
Sample	%Viability (10 μM)								
Extract*	28.53	26.91	10.41	50.14	81.57				
1	58.89	40.17	40.92	97.16	81.24				
2	36.88	35.73	46.38	100.08	73.31				
3	78.96	38.26	37.31	98.20	69.87				
5	96.50	33.10	32.42	95.56	60.30				

<sup>\*</sup> The viability% of the extract was measured at 100  $\mu$ g/mL.

**Table S2.** 1D-NMR spectral data of compounds 3 - 6 in CD<sub>3</sub>OD

С/Н	3		4*		5		6	
	<sup>13</sup> C	$^{1}$ H $J_{Hz}$	<sup>13</sup> C	$^{1}$ H $J_{\mathrm{Hz}}$	<sup>13</sup> C	$^{1}$ H $J_{Hz}$	<sup>13</sup> C	$^{1}$ H $J_{Hz}$
1	129.3		129.8		130.5		129.6	
2	132.5	7.74, d, 8.5	130.6	7.75, dd, 1.8, 8.4	131.4	7.79, dd, 1.8, 8.4	128.7	7.79, dd, 1.6, 8.4
3	116.5	6.88, d, 8.5	115.9	7.03, d, 8.4	114.3	6.97, d, 8.4	114.7	6.88, d, 8.4
4	164.1		160.4		162.6		156.4	
5	116.5	6.88, d, 8.5	110.4		83.7		108.6	
6	132.5	7.74, d, 8.5	134.7	8.04, d, 1.8	141.3	8.26, d, 1.8	134.3	8.10, d, 1.6
7	191.2	9.75, s	190.1	9.75, s	190.0	9.73, s	172.1	

<sup>\*</sup> NMR spectral data of compound 4 in DMSO

### Spectral data

Figure S1: <sup>1</sup>H-NMR spectrum of compound 1 in CD<sub>3</sub>OD

Figure S2: HH-COSY NMR spectrum of compound 1 in CD<sub>3</sub>OD

Figure S3: <sup>13</sup>C-NMR spectrum of compound 1 in CD<sub>3</sub>OD

Figure S4: <sup>13</sup>C-DEPT-135 NMR spectrum of compound 1 in CD<sub>3</sub>OD

Figure S5: HSQC NMR spectrum of compound 1 in CD<sub>3</sub>OD

Figure S6: HMBC NMR spectrum of compound 1 in CD<sub>3</sub>OD

**Figure S7:** HMBC NMR spectrum ( $\delta_H$  9.7-6.5 and  $\delta_C$  80-200) of compound 1 in CD<sub>3</sub>OD

Figure S8: (-) ESI-MS spectrum of compound 1

Figure S9: <sup>1</sup>H-NMR spectrum of compound 2 in CD<sub>3</sub>OD

Figure S10: <sup>13</sup>C-NMR spectrum of compound 2 in CD<sub>3</sub>OD

Figure S11: HSQC NMR spectrum of compound 2 in CD<sub>3</sub>OD

Figure S12: HMBC NMR spectrum of compound 2 in CD<sub>3</sub>OD

Figure S13: EI-MS spectrum of compound 2

Figure S14: <sup>1</sup>H-NMR spectrum of compound 3 in CD<sub>3</sub>OD

Figure S15: HH-COSY NMR spectrum of compound 3 in CD<sub>3</sub>OD

Figure S16: <sup>13</sup>C-NMR spectrum of compound 3 in CD<sub>3</sub>OD

Figure S17: <sup>13</sup>C-DEPT-135 NMR spectrum of compound 3 in CD<sub>3</sub>OD

Figure S18: HSQC NMR spectrum of compound 3 in CD<sub>3</sub>OD

Figure S19: HMBC NMR spectrum of compound 3 in CD<sub>3</sub>OD

Figure S20: EI-MS spectrum of compound 3

## Compound 1

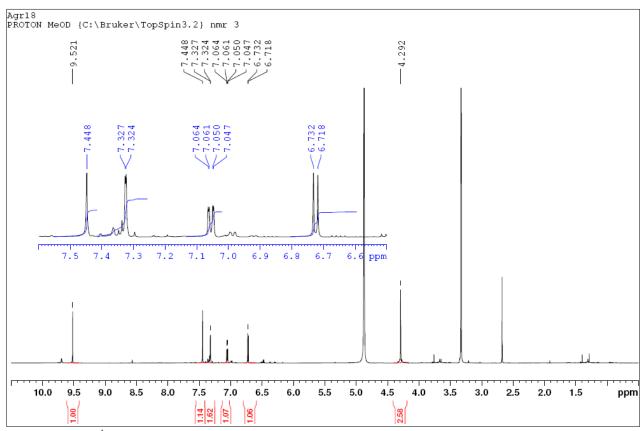


Fig. S1: <sup>1</sup>H-NMR spectrum of compound 1 in CD<sub>3</sub>OD

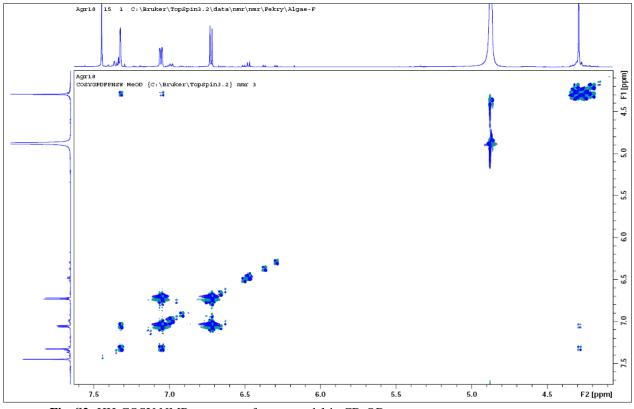


Fig. S2: HH-COSY NMR spectrum of compound 1 in CD<sub>3</sub>OD

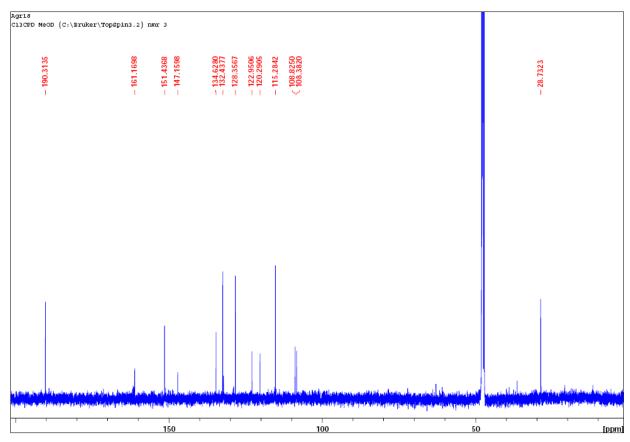


Fig. S3:  $^{13}$ C-NMR spectrum of compound 1 in CD<sub>3</sub>OD

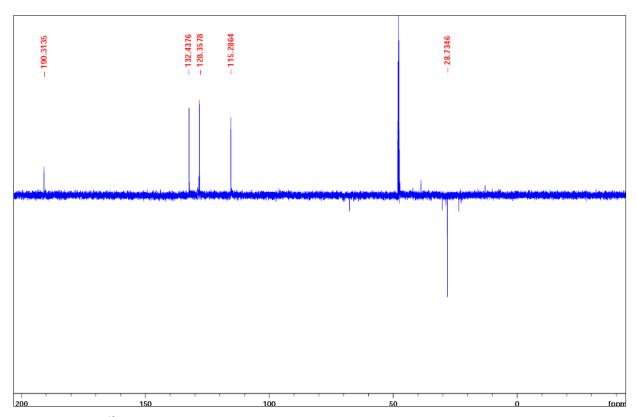


Fig. S4: <sup>13</sup>C-DEPT135 NMR spectrum of compound 1 in CD<sub>3</sub>OD

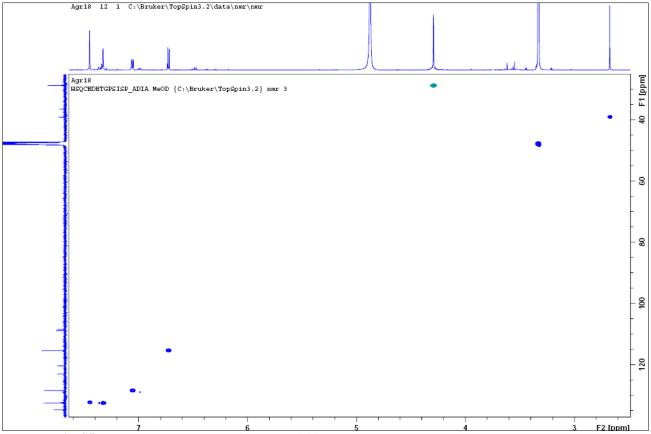


Fig. S5: HSQC NMR spectrum of compound 1 in CD<sub>3</sub>OD

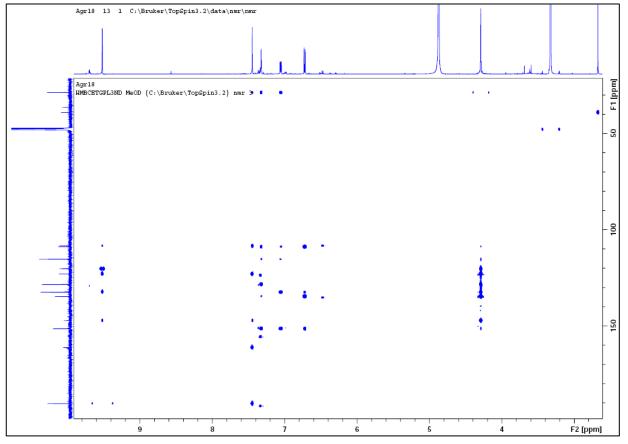


Fig. S6: HMBC NMR spectrum of compound 1 in CD<sub>3</sub>OD

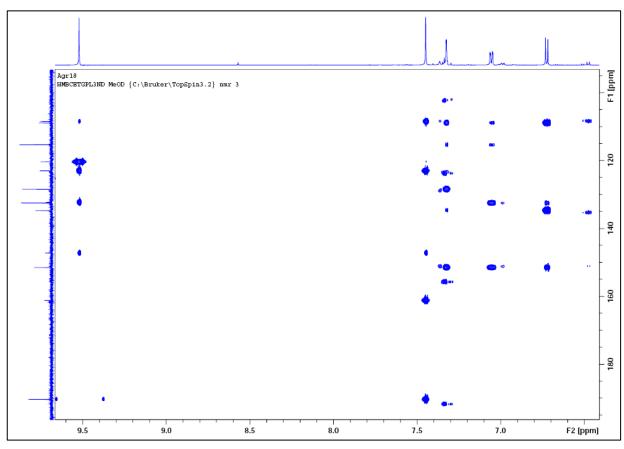


Fig. S7: HMBC NMR spectrum ( $\delta_H$  9.7-6.5 and  $\delta_C$  80-200) of compound 1 in CD<sub>3</sub>OD

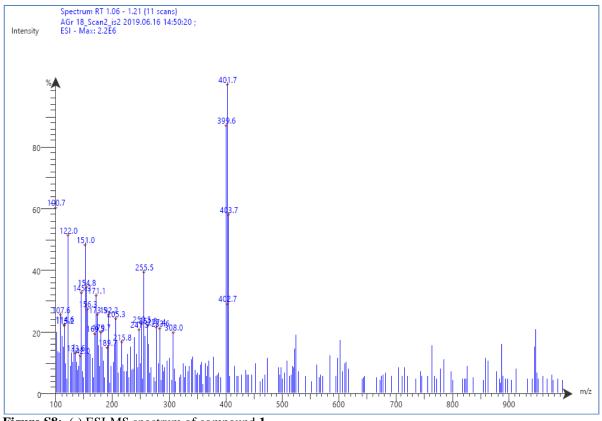


Figure S8: (-) ESI-MS spectrum of compound 1

## Compound 2

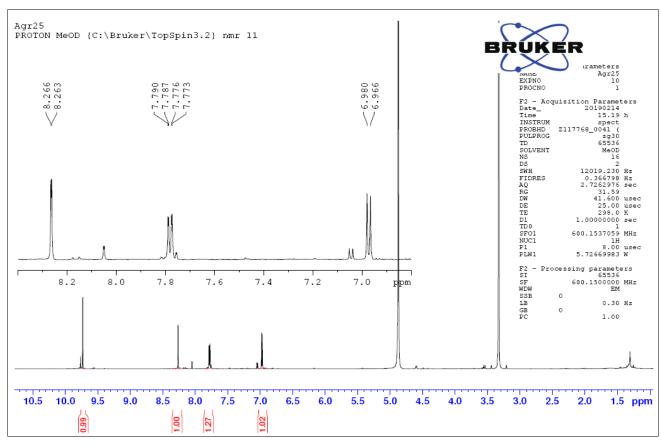


Fig. S9: <sup>1</sup>H-NMR spectrum of compound 2 in CD<sub>3</sub>OD

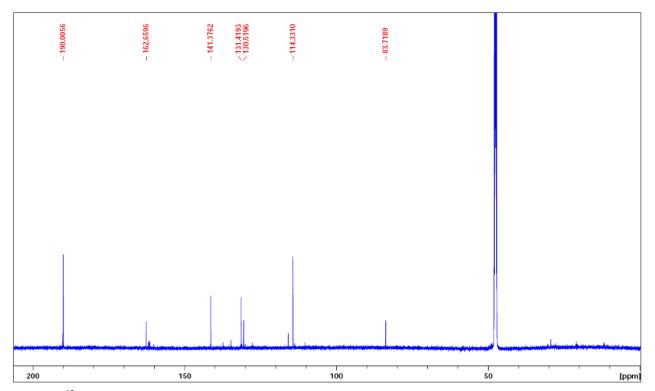


Fig. S10: <sup>13</sup>C-NMR spectrum of compound 2 in CD<sub>3</sub>OD

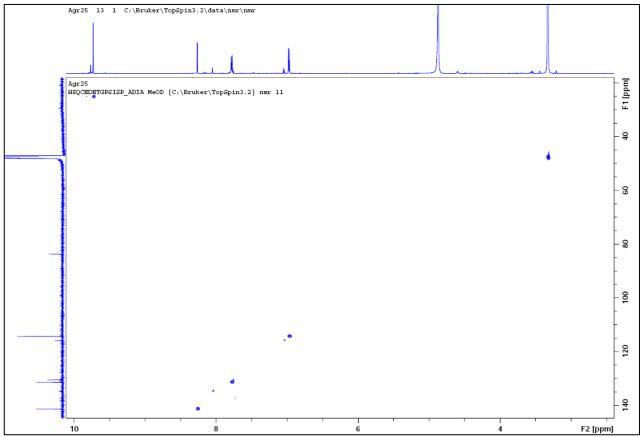


Fig. S11: HSQC NMR spectrum of compound 2 in CD<sub>3</sub>OD

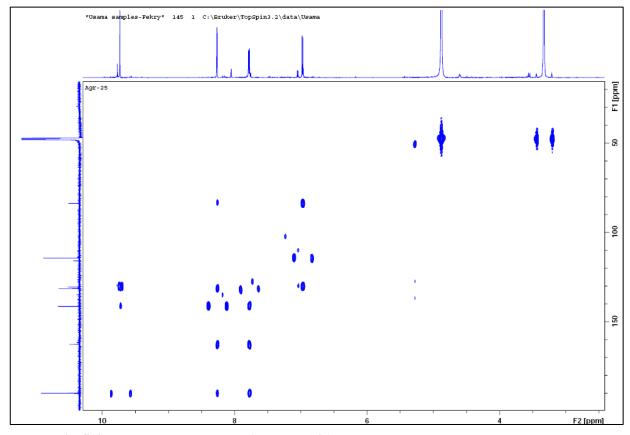


Fig. S12: HMBC NMR spectrum of compound 2 in CD<sub>3</sub>OD

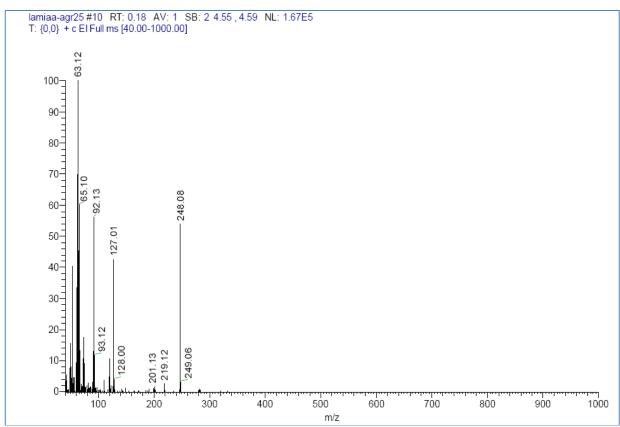


Fig. S13: EI-MS spectrum of compound 2

#### Compound 3

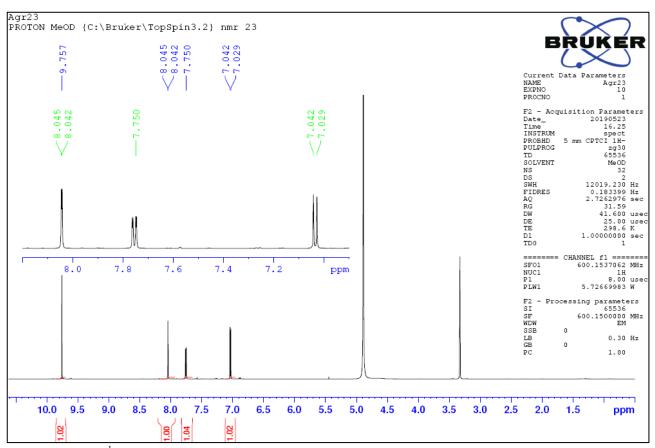


Fig. S14: <sup>1</sup>H NMR spectrum of compound 3 in CD<sub>3</sub>OD

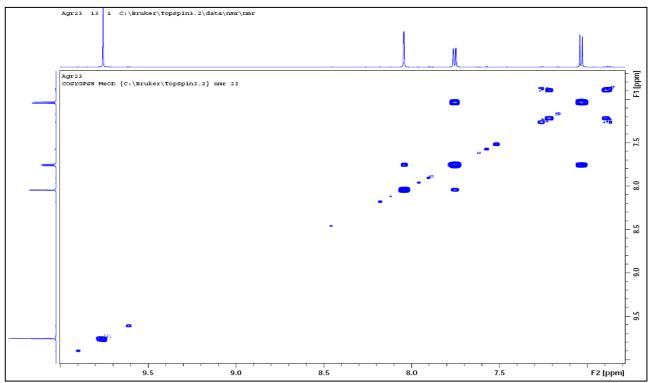
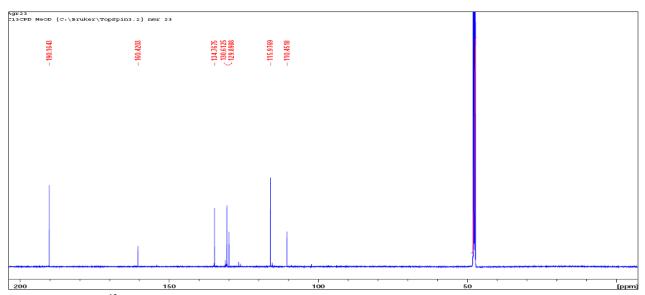
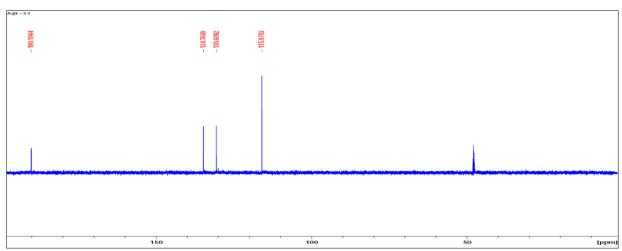


Fig. S15: HH-COSY NMR spectrum of compound 3 in CD<sub>3</sub>OD



**Fig. S16:** <sup>13</sup>C NMR spectrum of compound **3** in CD<sub>3</sub>OD



**Fig. S17:** <sup>13</sup>C-DEPT135 NMR spectrum of compound **3** in CD<sub>3</sub>OD

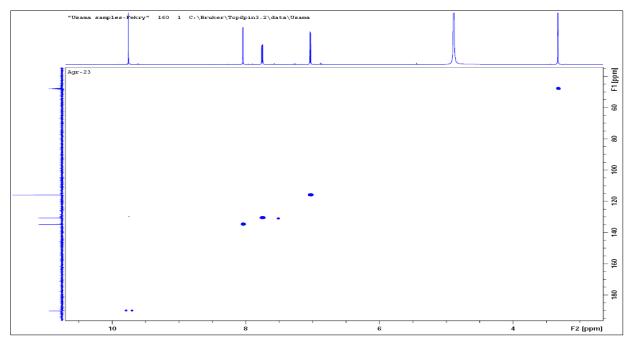
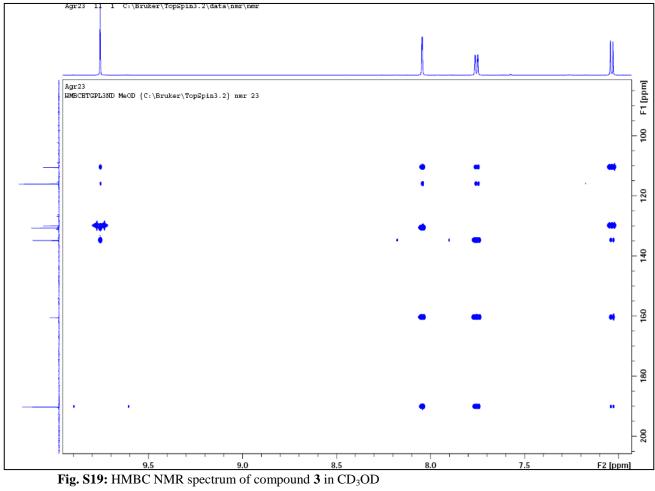


Fig. S18: HSQC NMR spectrum of compound 3 in CD<sub>3</sub>OD



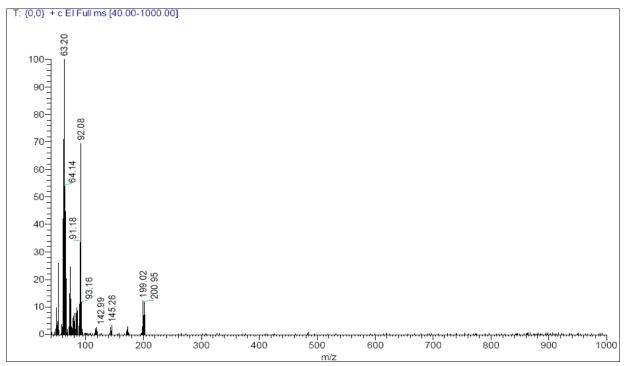


Fig. S20: EI-MS spectrum of compound 3