## PHAEOPHYTINS FROM Thyrsacanthus ramosissimus Moric. WITH INHIBITORY ACTIVITY ON HUMAN DNA TOPOISOMERASE II- $\alpha^{\#}$

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Figure 1S. IR spectrum of compound 1

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Figure 2S. ESI-MS spectrum of compound 1







Figure 4S. Expansion of NMR<sup>13</sup>C-APT spectrum in the region of 178.0 – 90.0 of compound 1 (CDCl<sub>3</sub>, 50 MHz)



Figure 5S. Expansion of the NMR <sup>13</sup>C-APT spectrum in the region of 65.0 – 8.0 of compound 1 (CDCl<sub>3</sub>, 50 MHz)



Figure 6S. NMR <sup>1</sup>H spectrum of compound 1 (CDCl<sub>3</sub>, 200 MHz)



Figure 7S. Expansion of the NMR<sup>1</sup>H spectrum in the region of 10.0 – 4.5 of compound 1 (CDCl<sub>3</sub>, 200 MHz)



Figure 8S. Expansion of the NMR <sup>1</sup>H spectrum in the region of 4.5 – 0.5 of compound 1 (CDCl<sub>3</sub>, 200 MHz)



Figure 9S. <sup>1</sup>H x <sup>13</sup>C-HMQC correlation spectrum of compound 1 (CDCl<sub>3</sub>, 200 and 50 MHz respectively)



Figure 10S. Expansion of the <sup>1</sup>H x <sup>13</sup>C-HMQC correlation spectrum of compound 1 (CDCl<sub>3</sub>, 200 and 50 MHz respectively)



Figure 11S. Expansion of the <sup>1</sup>H x <sup>13</sup>C-HMQC correlation spectrum of compound 1 (CDCl<sub>3</sub>, 200 and 50 MHz respectively)



Figure 12S. <sup>1</sup>H x <sup>1</sup>H-COSY correlation spectrum of compound 1 (CDCl<sub>3</sub>, 200 MHz)



Figure 13S. Expansion of the <sup>1</sup>H x <sup>1</sup>H-COSY correlation spectrum of compound 1 (CDCl<sub>3</sub>, 200 MHz)



Figure 14S. <sup>1</sup>H x <sup>13</sup>C-HMBC correlation spectrum of compound 1 (CDCl<sub>3</sub>, 200 and 50 MHz respectively)



Figure 15S. Expansion of the <sup>1</sup>H x <sup>13</sup>C-HMBC correlation spectrum of compound 1 (CDCl<sub>3</sub>, 200 and 50 MHz respectively)



Figure 16S. Expansion of the <sup>1</sup>H x <sup>13</sup>C-HMBC correlation spectrum of compound 1 (CDCl<sub>2</sub>, 200 and 50 MHz respectively)



Figure 17S. <sup>1</sup>H x <sup>1</sup>H-NOESY spatial correlation spectrum of compound 1 (CDCl<sub>3</sub>, 200 MHz)



Figure 18S. Expansion of the 'H x 'H-NOESY spatial correlation spectrum of compound 1 (CDCl<sub>3</sub> 200 MHz)