Supporting Information

for

Microtubule-Stabilizing Activity of Zampanolide, A Potent Macrolide Isolated from the Tongan Marine Sponge *Cacospongia mycofijiensis*

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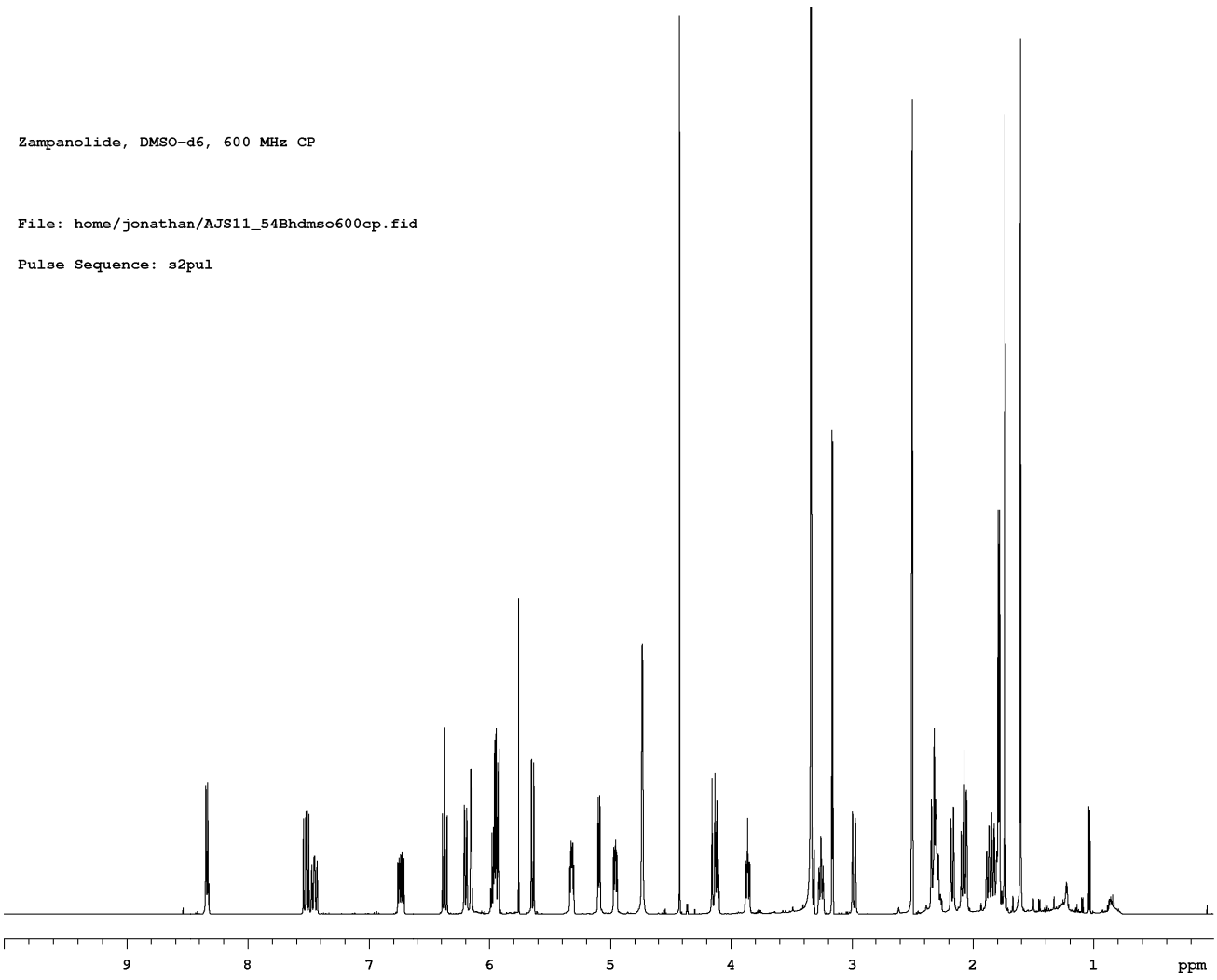
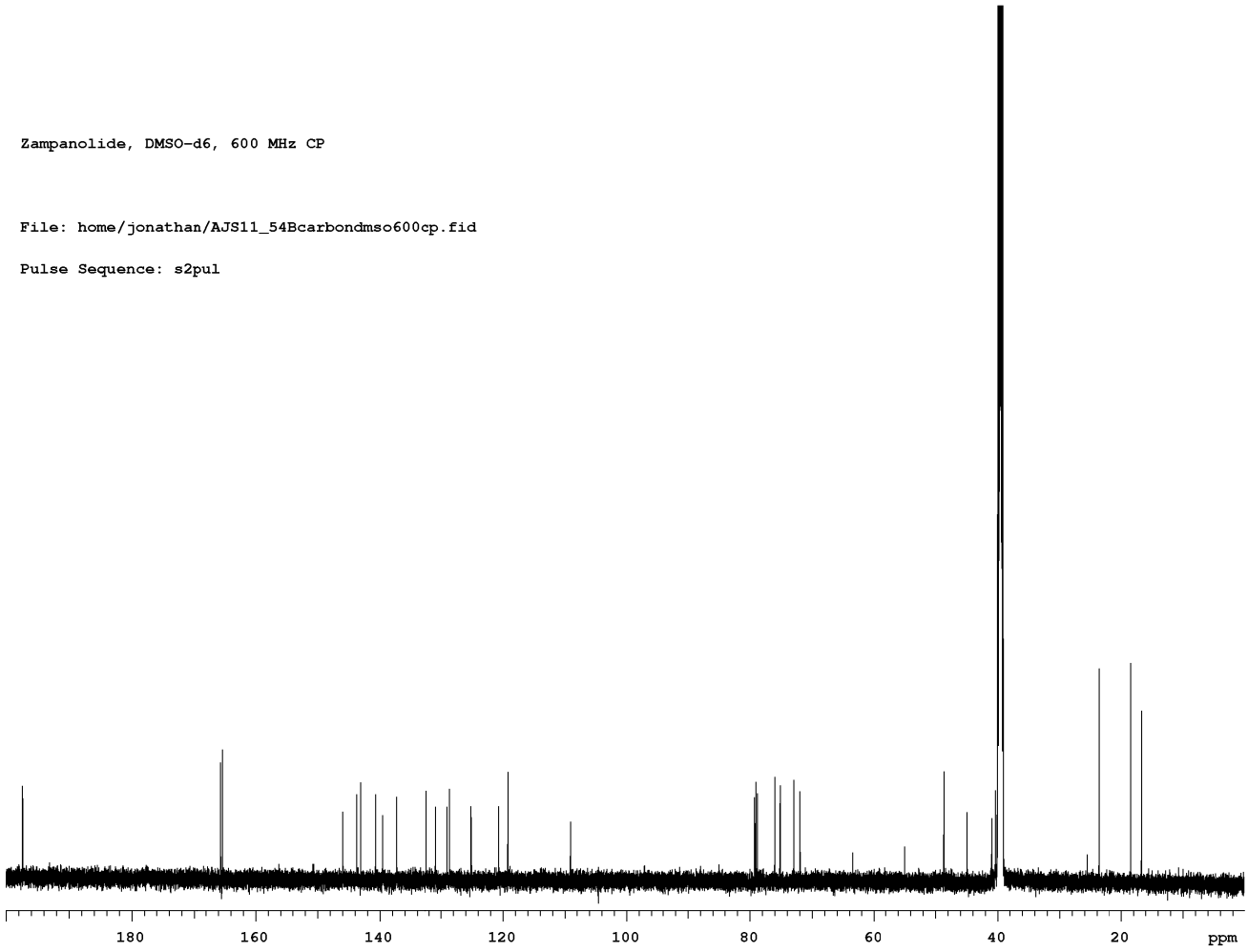
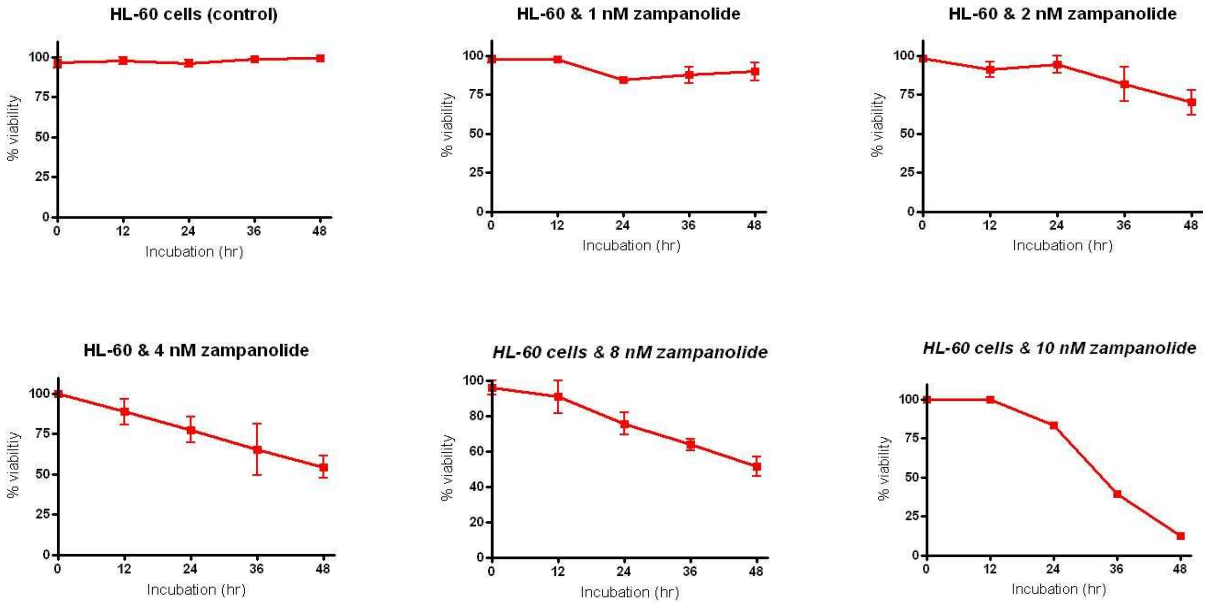


Note: resonance at δ_H 4.42 is nitromethane (CH_3NO_2) added as an internal standard.

Figure S1. ^{1}H NMR (600 MHz) spectrum of zampanolide (**1**) in DMSO-d_6.

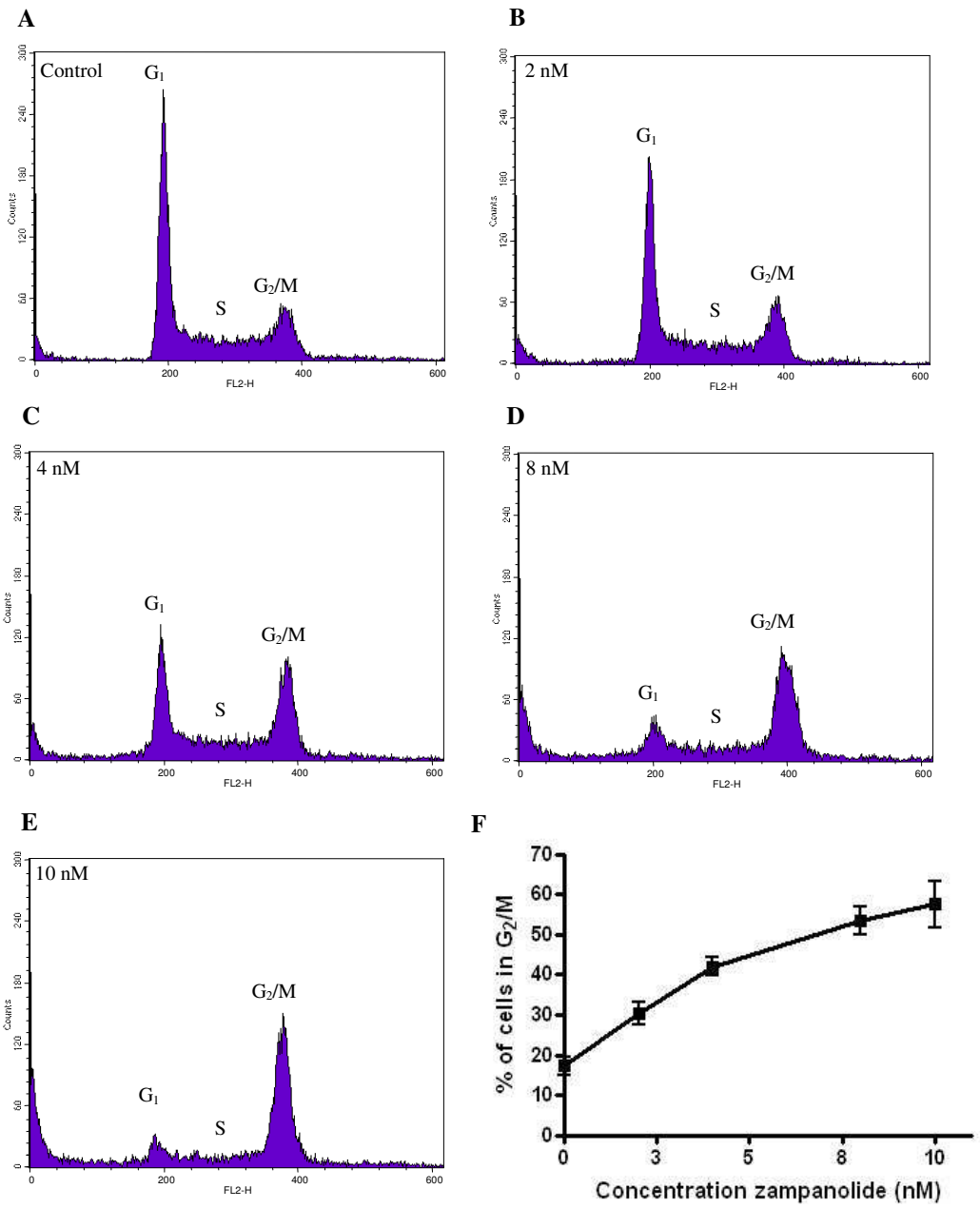
Figure S2. ^{13}C NMR (150 MHz) Spectrum of zampanolide (**1**) in DMSO-d_6.



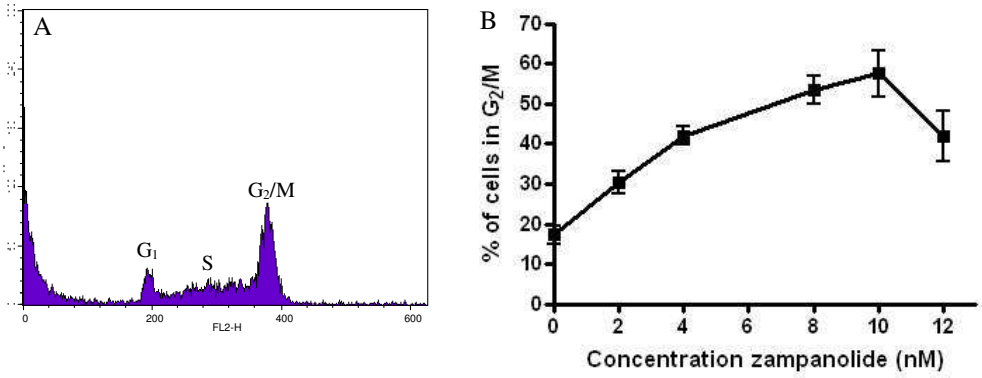


Trypan blue dye exclusion assay for zampanolide. Zampanolide effects on % viability of HL-60 cells. Cells were treated and aliquots taken every 12 hours from time 0 and assessed for cell viability using trypan blue dye exclusion. The results are presented as the mean ± SEM (n = 2 wells from two separate experiments).

Figure S3. Trypan blue dye exclusion assay for HL-60 cells.



Flow cytometry results (representative results). A–E. At 10 nM zampanolide, 58% of HL-60 cells are in the G_2/M phase of the cell cycle compared to 17% in untreated cells. The number of cells in G_2/M increases in a dose-dependent manner. **F.** Summary graph, values are represented as the means ± SEM (n = 4).



Flow cytometry results for 12 nM zampanolide. At 12 nM zampanolide there is a decrease in the number of cells arrested in G_2/M and an increase in dead cells or cellular debri.

Figure S4. G_2/M block series for HL-60 cells.