

The marine dinoflagellate *Alexandrium minutum* activates a mitophagic pathway in human lung cancer cells

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SUPPLEMENTARY INFORMATION

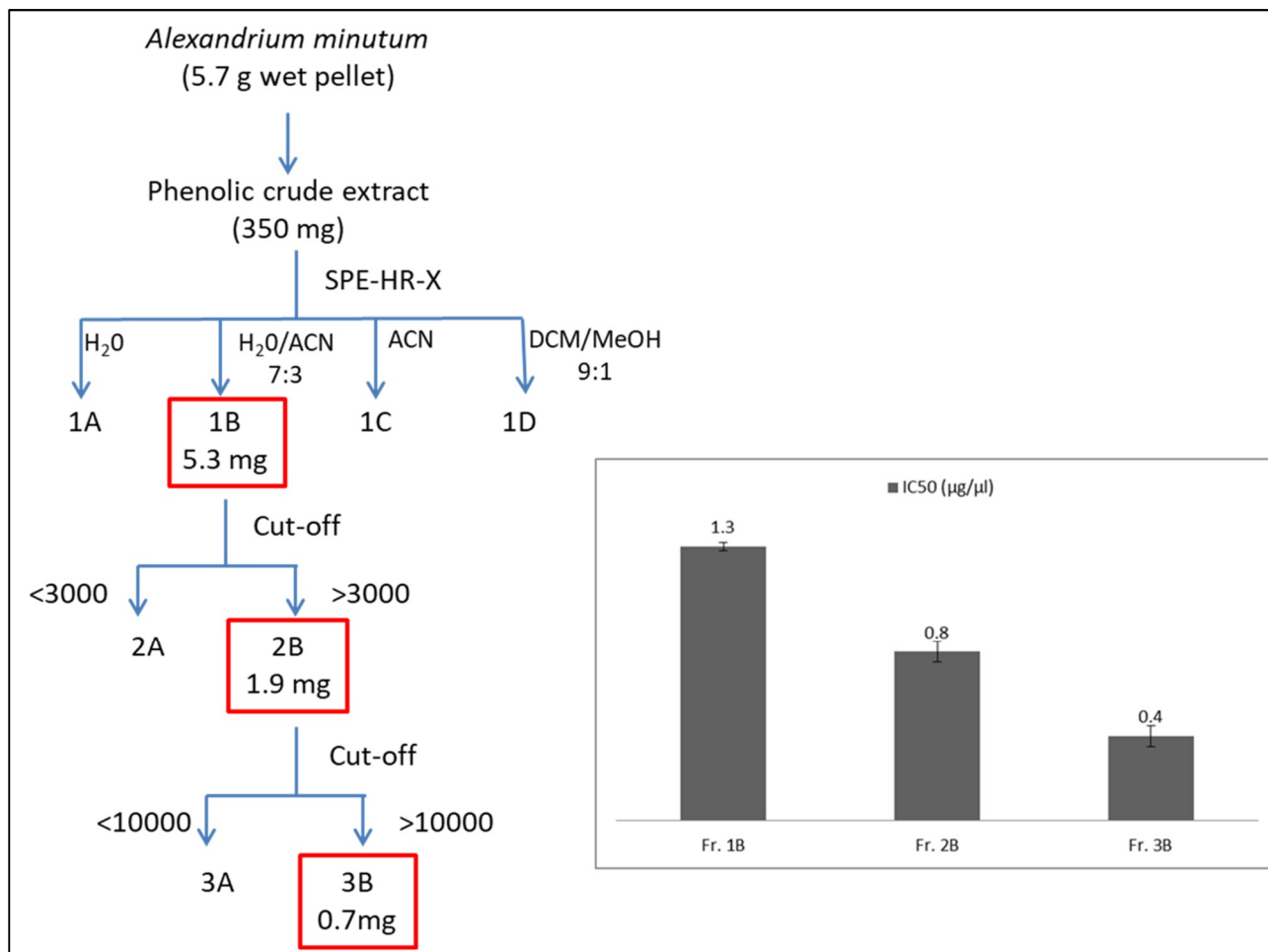


Figure S1. Bioassay-guided fractionation of *A. minutum* on lung adenocarcinoma cells A549. Bioactivity of fractions (1B, 2B and 3B) is reported as half maximal inhibitory concentration (IC₅₀).

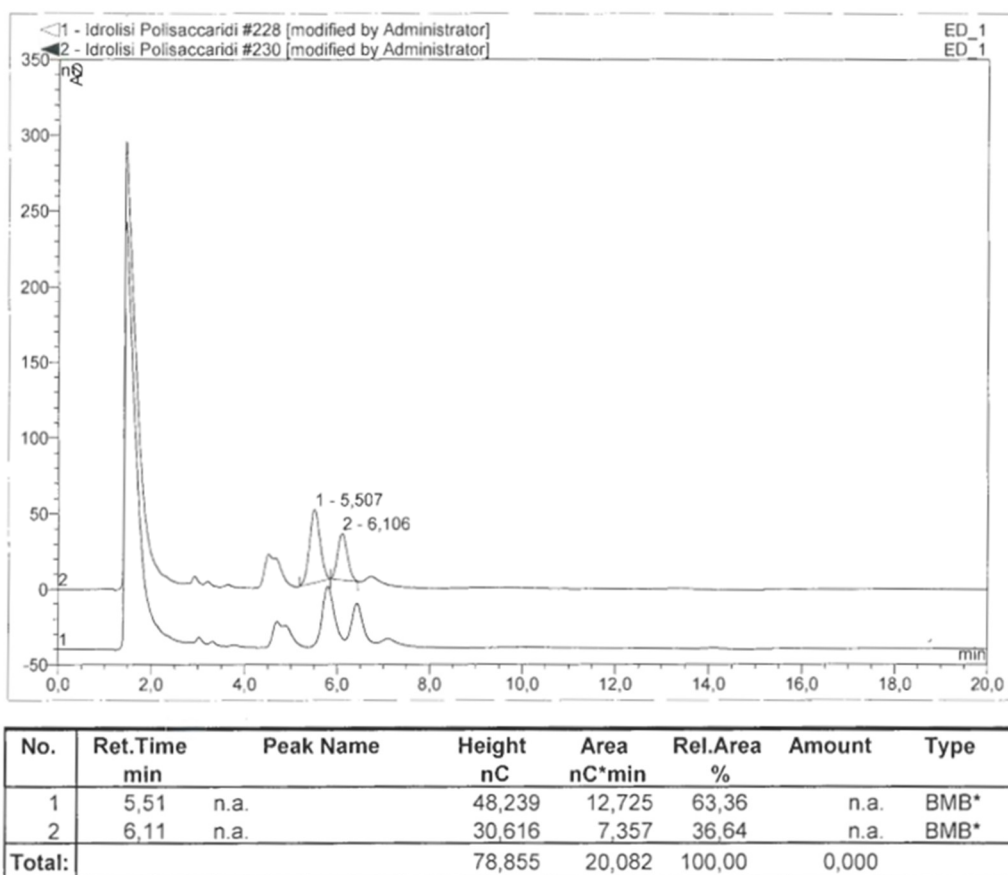


Figure S2. High-performance anion-exchange chromatography (HPAEC) of hydrolyzed sugars (1 = D-galactose; 2 = D-glucose).

A B C

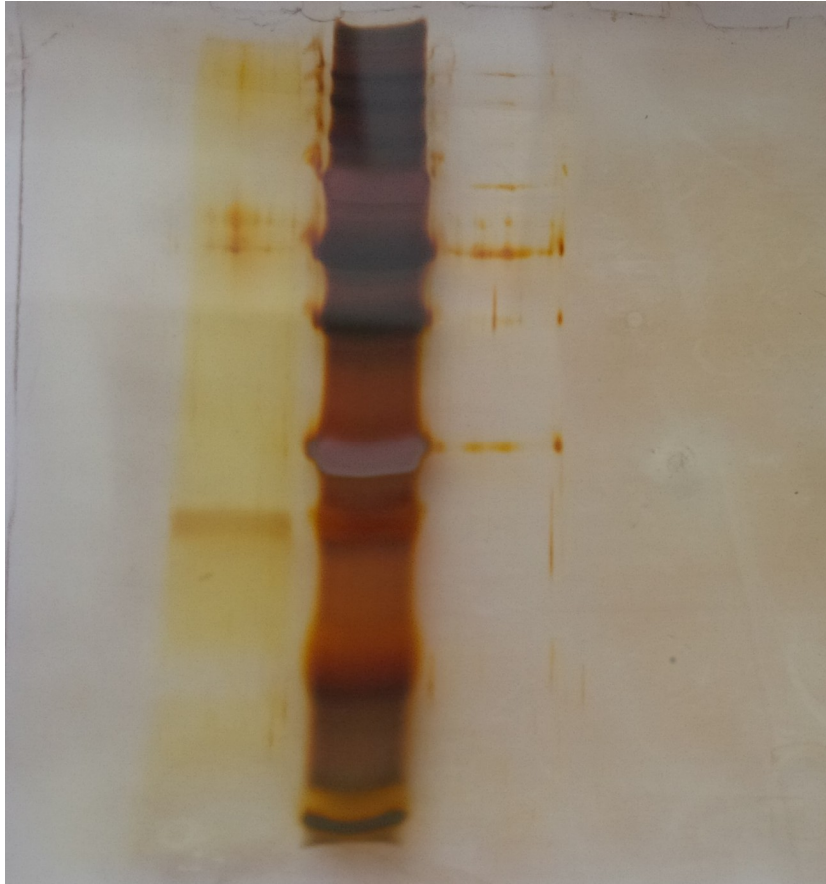


Figure S3. Whole electrophoresis gel of: A) fraction 3B (active sample); B) STD; C) fraction 4B (deglycosylated 3B sample).

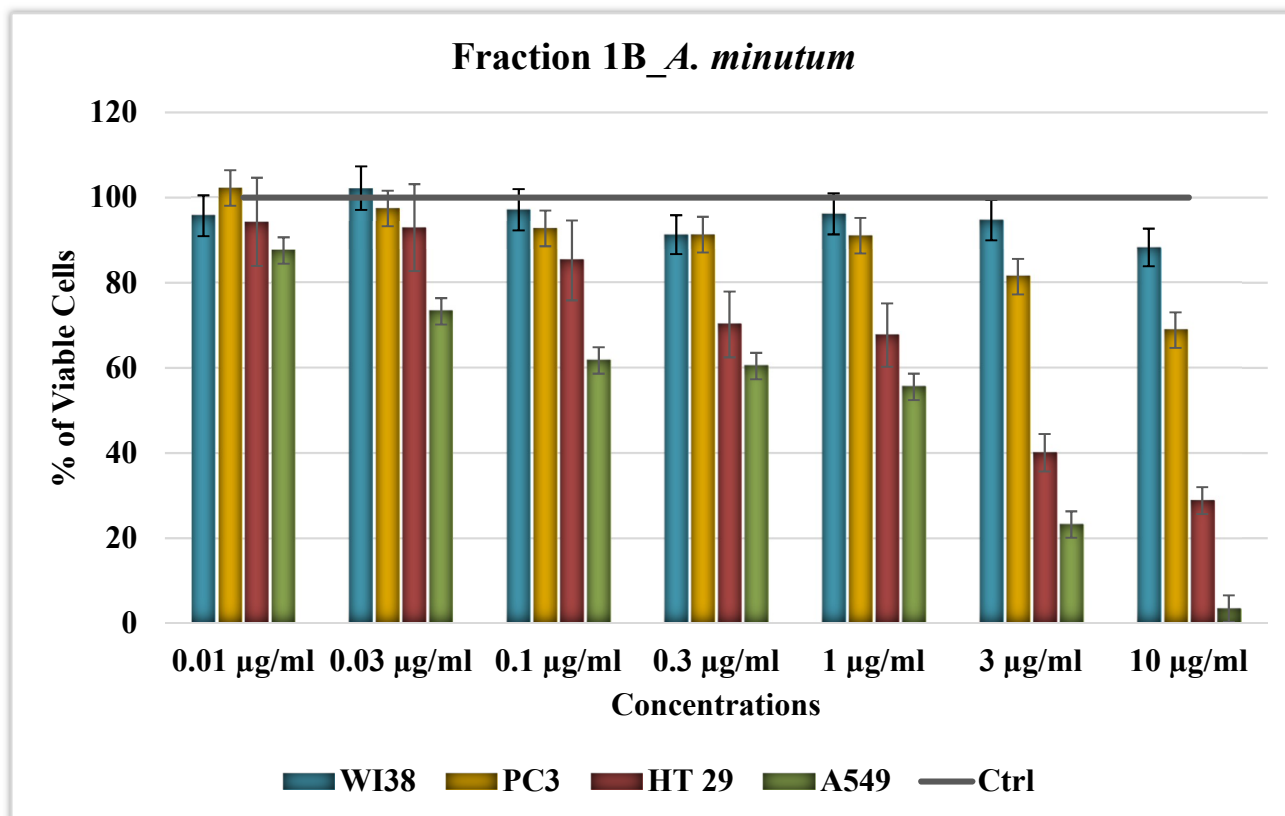


Figure S4. Effect of the fraction 1B on cell viability of human normal lung fibroblasts (WI38), human prostate cancer cells (PC3), human colorectal adenocarcinoma cells (HT29) and human lung adenocarcinoma cells (A549). Values are reported as mean \pm S.D. compared to controls (100% viability) of three independent experiments. Concentrations tested were 0.01, 0.03, 0.1, 0.3, 1, 3 and 10 $\mu\text{g ml}^{-1}$ for 48 h.

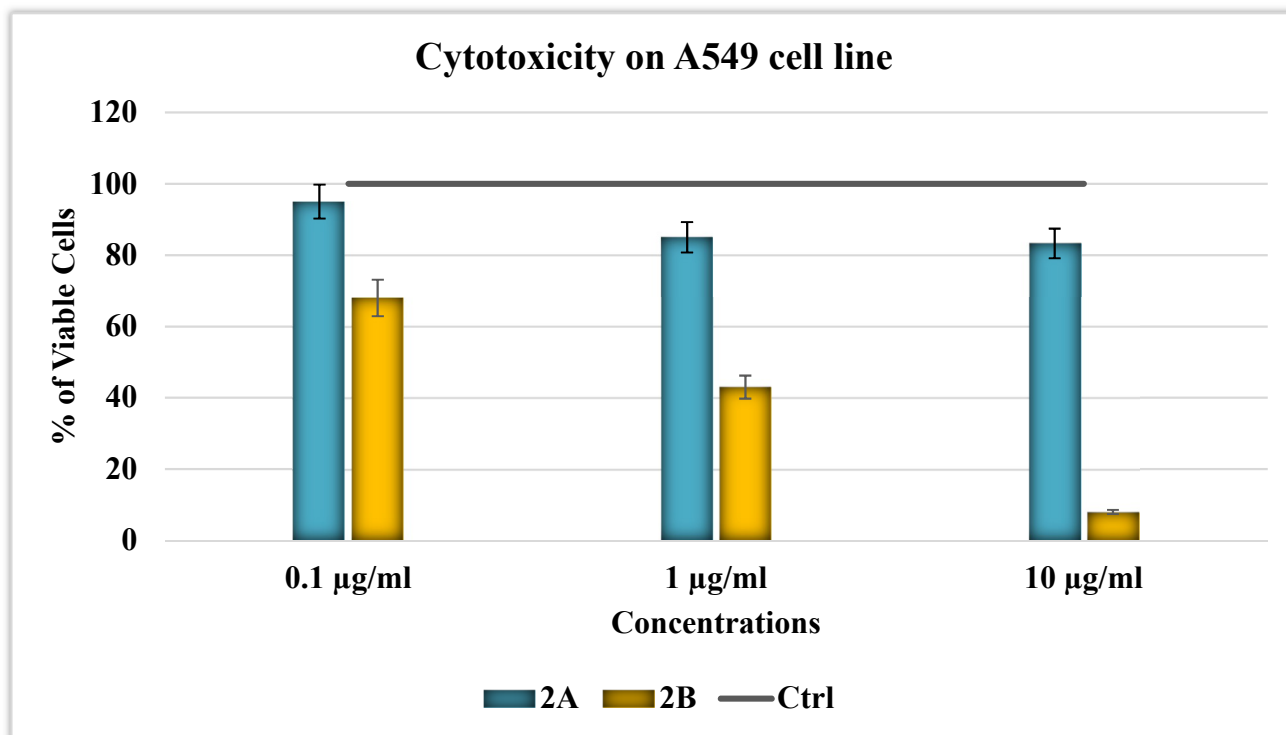


Figure S5. Effect of the fractions 2A and 2B on cell viability of human lung adenocarcinoma cells (A549). Values are reported as mean \pm S.D. compared to controls (100% viability) of three independent experiments. Concentrations tested were 0.1, 1 and 10 $\mu\text{g ml}^{-1}$ for 48 h.