polymers

MDPI

Supplementary Materials

Assessing the antitumor potential of variants of the extracellular carbohydrate polymer from *Synechocystis* Δ*sigF* mutant

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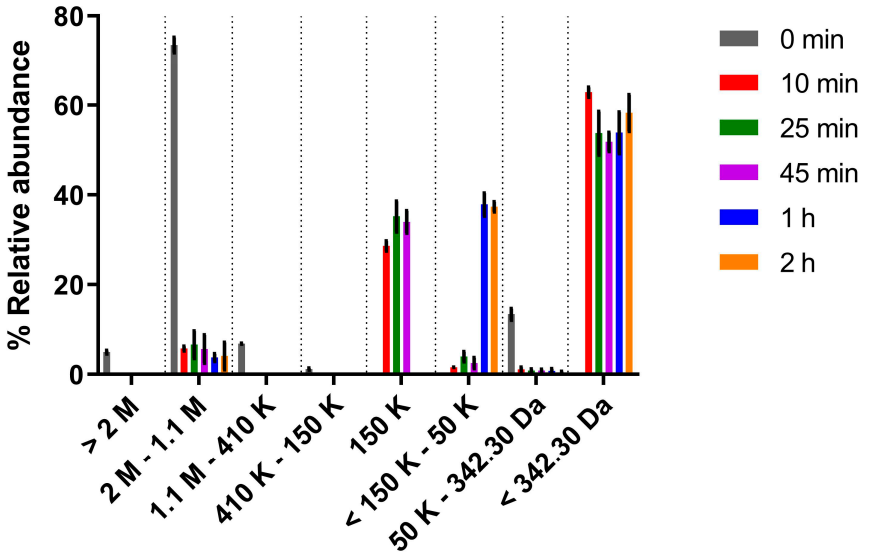

Figure S1. Molecular mass distribution of *Synechocystis* Δ*sigF* polymer before and after hydrolysis with HCl for different time periods. Measurements were made using size exclusion chromatography (SEC). Results are represented as mean ± STD of three biological and three technical replicates.

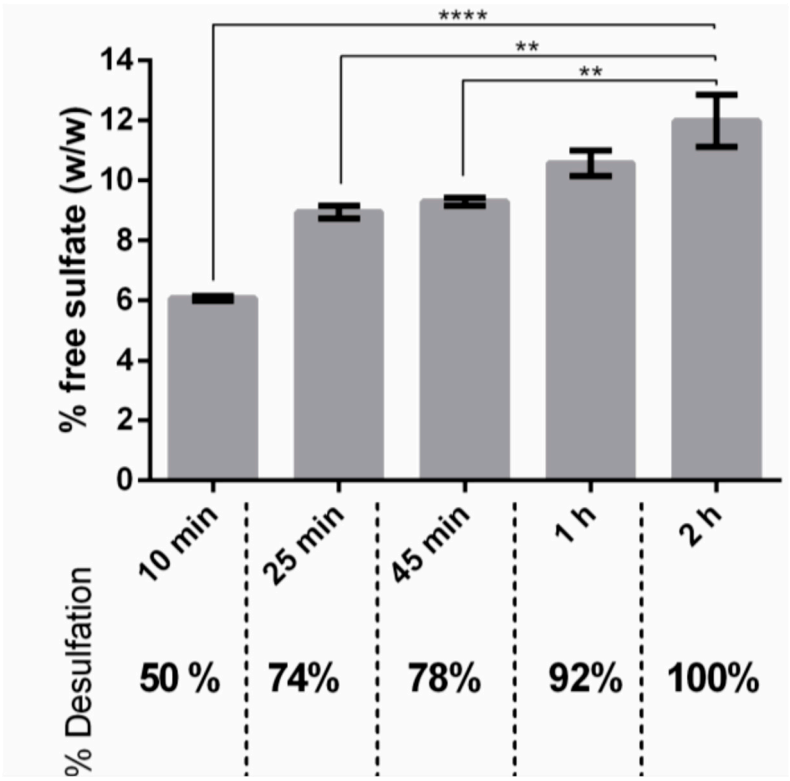

Figure S2. Quantification of the sulfate released from *Synechocystis* Δ*sigF* polymer after HCl hydrolysis (from 10 min to 2 h), and the percentage of desulfation obtained. Statistical analysis is presented in comparison to the maximum time of hydrolysis (** $p \leq 0.01$; **** $p \leq 0.0001$).

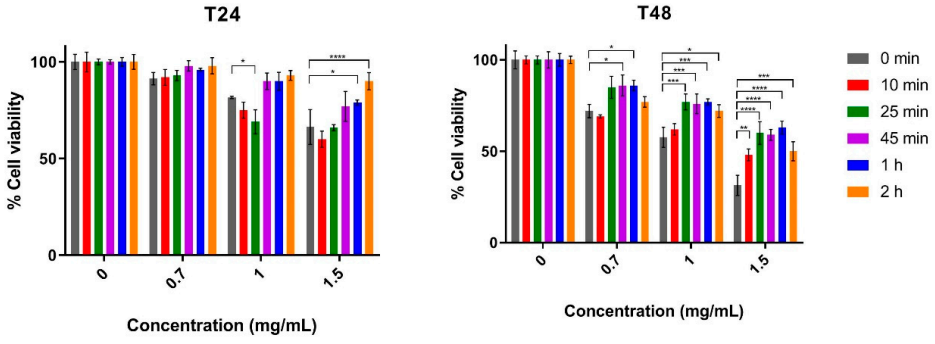

Figure S3. Effect of the *Synechocystis* Δ*sigF* polymer (0 min), and its variants obtained after hydrolysis with HCl (from 10 min to 2 h), on the viability of human melanoma (Mewo) cell line evaluated with the PrestoBlue™ viability assay. Cells were treated with 0.7, 1 or 1.5 mg/mL of polymer for 24 or 48 h (T24 and T48, respectively). Cells were also treated with polymer vehicle as control, showing no differences to Blank (data not shown). Results are expressed in relation to Blank and are represented as mean ± STD of three independent experiments (* $p < 0.05$, ** $p < 0.01$ *** $p \leq 0.001$; and **** $p < 0.0001$).

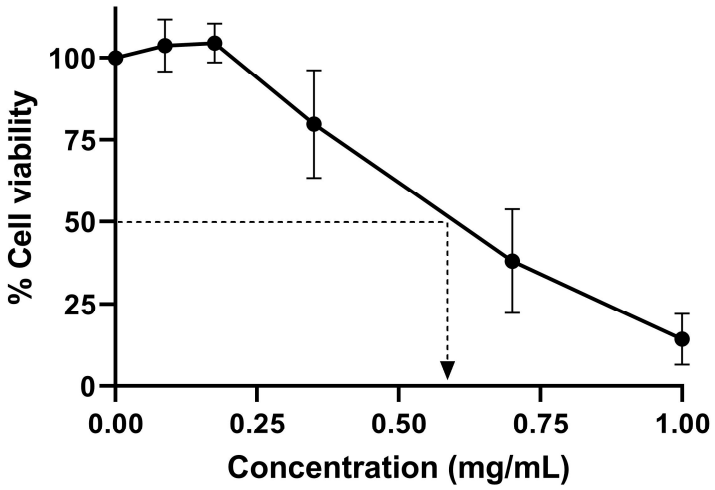

Figure S4. Effect of the *Synechocystis* Δ*sigF* polymer with reduced peptide content (Δ*sigF*.pep-) on the viability of human melanoma (Mewo) cell line, analyzed using the PrestoBlue™ viability assay. Cells were treated with increasing concentrations of the polymer for 48 h. Cells treated with polymer vehicle were used as controls showing no differences to Blank (data not shown). Results are express in relation to Blank and are represented as mean ± STD of four independent experiments.