

Comparative bioactivities of native, degraded, and sulfated fucoidan derivatives from *Sargassum crassifolium*: insights from apoptosis, migration, immunostimulation, and multivariate analysis

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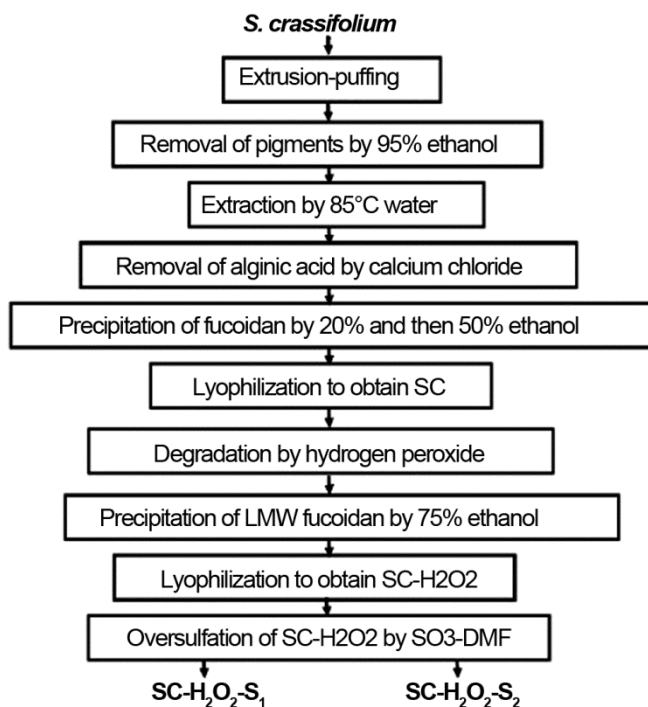
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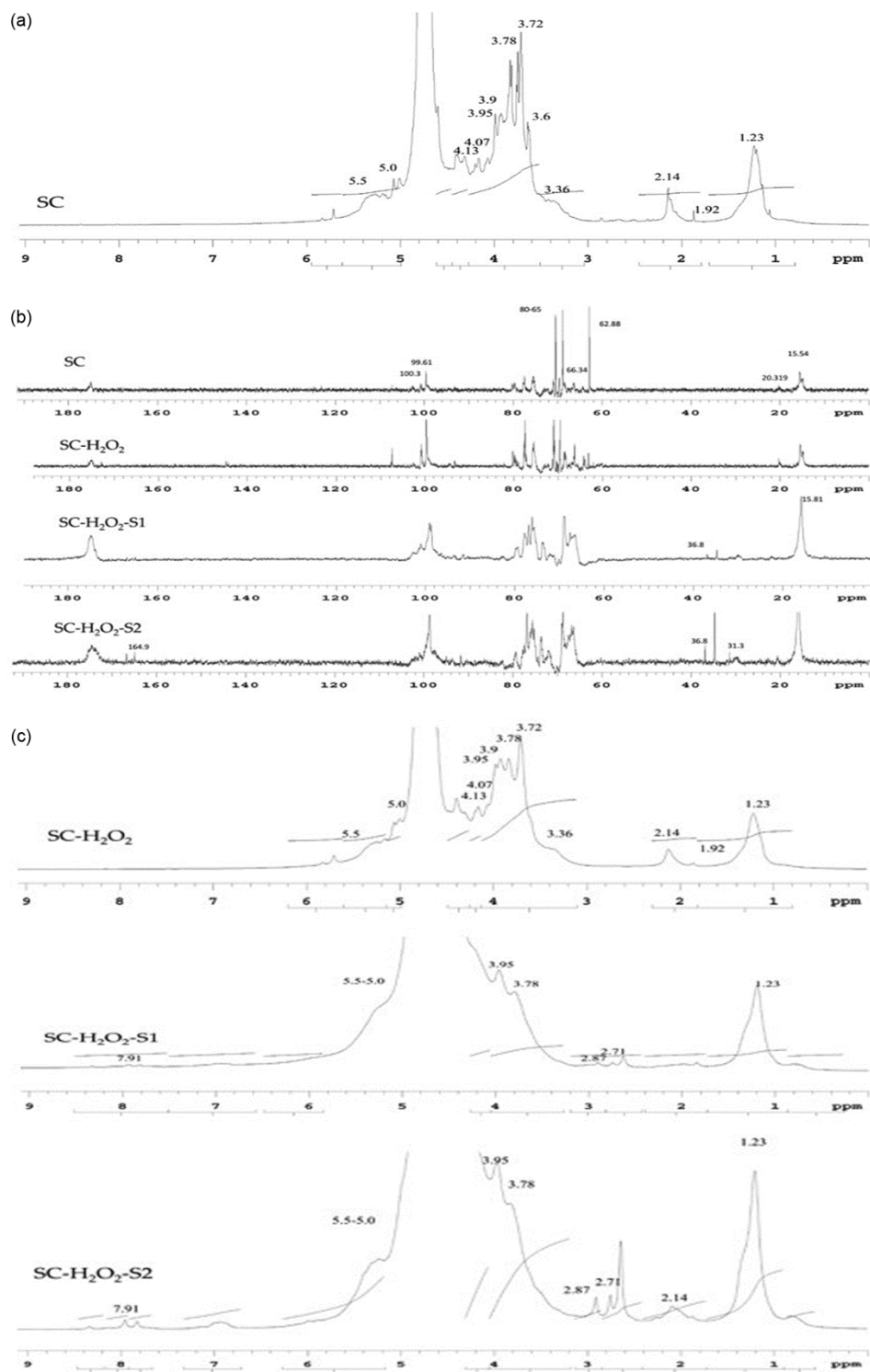
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Supplementary Figure S1. — Flowchart of the preparation of SC (native fucoidan), SC-H₂O₂ (degraded fucoidan), SC-H₂O₂-S₁ (mild oversulfated fucoidan), and SC-H₂O₂-S₂ (intensive oversulfated fucoidan) from *Sargassum crassifolium*.



Supplementary Figure S2 — NMR spectra for SC, SC- H_2O_2 , SC- H_2O_2 -S1, and SC- H_2O_2 -S2. (A) ^1H spectra. (B) ^{13}C spectra. The characteristic peaks are labeled.