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Hyaluronidase-Inhibiting Polysaccharide Isolated and Purified from Hot Water Extract of Sporophyll of *Undaria pinnatifida*

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Polysaccharide showing inhibitory activity against hyaluronidase, which is known to be related to inflammation and tumor metastasis, was purified from the sporophyll of *Undaria pinnatifida* by fractionated extraction and column chromatography. On the basis of chemical analyses, the purified compound was found to be a kind of sulfated polysaccharide. The molar ratio of sugars and sulfuric acid in the purified compound was estimated to be L-fucose : D-galactose : D-glucuronic acids : sulfuric acid1.0 : 1.0 : 0.04 : 5.2. The number-average molecular weight of the sulfated polysaccharide was estimated to be 63,000 by high-performance liquid chromatography. This polysaccharide inhibited hyaluronidase activity (IC_{50}13.0 μg/ml) in a dose-dependent manner.

Keywords: hyaluronidase, *Undaria pinnatifida*, sporophyll, inhibitor, polysaccharide