

[Available Issues](#) | [Japanese](#)
[>> Publisher Site](#)

 Author: [ADVANCED](#) | Volume Page
 Keyword: |

[TOP](#) > [Available Issues](#) > [Table of Contents](#) > Abstract

ONLINE ISSN : 1881-3984

PRINT ISSN : 1344-6606

Food Science and Technology Research

Vol. 9 (2003) , No. 1 pp.25-29


[\[PDF \(114K\)\]](#) [\[References\]](#)
Hyaluronidase-Inhibiting Polysaccharide Isolated and Purified from Hot Water Extract of Sporophyll of *Undaria pinnatifida*
[Takuya KATSUBE^{1\)}](#), [Yukikazu YAMASAKI^{1\)}](#), [Masatoshi IWAMOTO^{1\)}](#) and [Syuichi OKA^{2\)}](#)
1) *Shimane Institute for Industrial Technology*2) *National Institute of Advanced Industrial Science and Technology*

(Received: May 23, 2002)

(Accepted: December 20, 2002)

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 acid 1.0 : 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 (IC₅₀ 13.0 µg/ml) in a dose-dependent manner.

Keywords: [hyaluronidase](#), [Undaria pinnatifida](#), [sporophyll](#), [inhibitor](#), [polysaccharide](#)

[\[PDF \(114K\)\]](#) [\[References\]](#)
Download Meta of Article [\[Help\]](#)
[RIS](#)

To cite this article:

Hyaluronidase-Inhibiting Polysaccharide Isolated and Purified from Hot Water Extract of Sporophyll of *Undaria pinnatifida* Takuya KATSUBE, Yukikazu YAMASAKI, Masatoshi IWAMOTO and Syuichi OKA, *FSTR*. Vol. **9**, 25-29. (2003) .

doi:10.3136/fstr.9.25

JOI JST.JSTAGE/fstr/9.25

Copyright (c) 2007 by Japanese Society for Food Science and Technology



[Japan Science and Technology Information Aggregator, Electronic](#)

