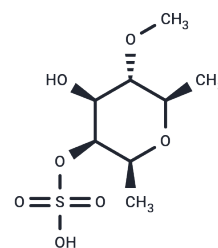


## Fucoidan

## Chemical Properties

CAS No. :	9072-19-9
Formula:	C <sub>8</sub> H <sub>16</sub> O <sub>7</sub> S
Molecular Weight:	256.27
Storage:	Powder: -20°C for 3 years   In solvent: -80°C for 1 year Actual storage temperature shall be subject to the COA.



## Biological Description

Description	Fucoidan is found in various species of brown seaweed and algae, with anticancer, antiviral, neuroprotective, immune-modulating.
Targets(IC50)	Others, Glucosidase, glycosidase
In vitro	Fucoidan significantly decreased viable cell number in a dose-response manner with an IC <sub>50</sub> of 550 ± 4.3 µg/mL. Cell morphology was altered and significant apoptosis was induced when cells were exposed to 550 µg/mL fucoidan for 48 h [1].
In vivo	Intraperitoneal injection of fucoidan in breast cancer models reduced the tumor volume and weight. The enhanced antitumor efficacy was associated with decreased angiogenesis and increased induction of apoptosis [2].
Cell Research	The influence of fucoidan on B16 melanoma cells and cellular tyrosinase: Cell viability was examined by the cell counting kit-8 assay. Cellular tyrosinase activity and melanin content were determined using spectrophotometric methods and protein expression was analyzed by immunoblotting. Morphological changes in B16 melanoma cells were examined by phase contrast microscopy and apoptosis was analyzed by flow cytometry [1].
Animal Research	In vivo, therapy experiments were conducted on Balb/c mice bearing breast cancer. The tumor volume and weight were measured. The number of apoptotic cells and microvascular density (MVD) in tumor tissues were assessed by TUNEL and CD34 immunostaining. Immunohistochemical assays and ELISA assay were used to detect the expression of VEGF in tissues [2].

## Solubility Information

Solubility	H <sub>2</sub> O: 10 mM, Sonication is recommended. DMSO: Insoluble, (< 1 mg/ml refers to the product slightly soluble or insoluble)
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### Preparing Stock Solutions

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	1mg	5mg	10mg
1 mM	3.9021 mL	19.5107 mL	39.0213 mL
5 mM	0.7804 mL	3.9021 mL	7.8043 mL
10 mM	0.3902 mL	1.9511 mL	3.9021 mL
50 mM	0.078 mL	0.3902 mL	0.7804 mL

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Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

### Reference

Wang Z J , Xu W , Liang J W , et al. EFFECT OF FUCOIDAN ON B16 MURINE MELANOMA CELL MELANIN FORMATION AND APOPTOSIS[J]. African Journal of Traditional, Complementary and Alternative Medicines, 2017, 14(4):149-155.  
Xue M , Ge Y , Zhang J , et al. Anticancer Properties and Mechanisms of Fucoïdan on Mouse Breast Cancer In Vitro and In Vivo[J]. PLOS ONE, 2012, 7.

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