Data Sheet (Cat.No.T203819)

TargetMol

α-L-Fucopyranos

Chemical Properties

CAS No. : 6696-41-9

Formula: C6H12O5

Molecular Weight: 164.156

Storage: Store under nitrogen
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	α-L-fucopyranose, an endogenous metabolite and six-carbon deoxyhexose, is present at the terminal or anterior position of many cell surface oligosaccharide ligands, mediates cell recognition and adhesion signaling pathways, and is a potentially critical molecule in pathological processes, including tumors.
Targets(IC50)	Endogenous Metabolite
In vitro	**Methods**: RAW264.7 macrophages were treated with α-L-Fucopyranos (5 mg/ml, 10 mg/ml, 4 hours), and the cells were collected to quantify the levels of IL-6 and MCP-1 by qPCR. **Results**: Quantitative PCR **Results** showed that the levels of Mcp1 and Il6 decreased in a concentration-dependent manner in RAW264.7 cells (Figure 5C), indicating that α-L-Fucopyranos can alleviate inflammation in vivo and in vitro. [2]
In vivo	**Methods**: α-L-Fucopyranos (100 mg/kg, intraperitoneal injection, three times a week) was used to treat HuCCT-1 cell-transplanted tumor model mice, and tumor volume and body weight were measured daily. **Results**: Tumor size, angiogenesis, and stiffness index were reduced in the α-L-Fucopyranos-treated group, indicating that α-L-Fucopyranos can inhibit tumor growth in mice. [3]

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	6.0916 mL	30.4581 mL	60.9162 mL
5 mM	1.2183 mL	6.0916 mL	12.1832 mL
10 mM	0.6092 mL	3.0458 mL	6.0916 mL
50 mM	0.1218 mL	0.6092 mL	1.2183 mL

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

Adhikari E,et al. L-fucose, a sugary regulator of antitumor immunity and immunotherapies. Mol Carcinog. 2022 May;61(5):439-453.

Li W, et al. L-fucose and fucoidan alleviate high-salt diet-promoted acute inflammation. Front Immunol. 2024 Mar 26;15:1333848.

Zhu B, Zheng J, et al. L-Fucose inhibits the progression of cholangiocarcinoma by causing microRNA-200b overexpression. Chin Med J (Engl). 2022 Dec 20;135(24):2956-2967.

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