Data Sheet (Cat.No.T11858)

TargetMol
A DRUG SCREENING EXPERT

Lith-O-Asp

Chemical Properties

CAS No.:	881179-02-8
Formula:	C28H45NO6
Molecular Weight:	491.66
Appearance:	N/A
Storage:	0-4℃ for short term (days to weeks), or -20℃ for long term (months).

Biological Description

Description	Lith-O-Asp is a sialytransferase (ST) inhibitor,(IC50s:12-37 μM).
Targets(IC_{50})	ST: 12-37 μM
In vitro	The results indicates that Lith-O-Asp decreased the activity of both a-2,3- and a-2,6-sialyltransferases, and thus inhibit the transfer of sialic acids to the targeted glycoproteins[1].The results indicate that Lith-O-Asp shows no apparent growth inhibition effect toward different cancer cell lines at the tested doses of 10, 30, and 60 μM. By in vitro activity assay, it is revealed that the ability of Lith-O-Asp to inhibit the activities of ST3Gal I, ST3Gal III, and ST6GalI. The IC50 values ranged from 12 to 37 μM. Flow cytometry shows a significant decrease in the expression of cell surface a-2,3- and a-2,6-sialylated antigens.
In vivo	A significant amount of secondary metastatic cancer cells are observed in lung tissues of DMSO control mice detected using IVIS in vivo imaging system after 26 days of fat pad inoculation. However, Lith-O-Asp–treated mice show fewer lung metastases. All DMSO-treated mice confirm secondary lung metastasis, but only 3 of 8 Lith-O-Asp-treated mice show lung metastasis. Average tumor nodules per mouse are 11±9 nodules in DMSO-treated group, and 2±4 nodules in Lith-O-Asp-treated group. Additionally, significantly stronger 4T1-Luc illumination signals are shown in control mice than in those injected with Lith-O-Asp-treated cancer cells on days 7 and 9[1].

Solubility Information

Solubility	DMSO: 106 mg/mL (215.60 mM) (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.034 mL	10.17 mL	20.339 mL
5 mM	0.407 mL	2.034 mL	4.068 mL
10 mM	0.203 mL	1.017 mL	2.034 mL
50 mM	0.041 mL	0.203 mL	0.407 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. The storage conditions and period of the stock solution: - 80 ℃ for 6 months; - 20 ℃ for 1 month. Please use it as soon as possible.

Reference

1. Chen JY, et al. A novel sialyltransferase inhibitor suppresses FAK/paxillin signaling and cancer angiogenesis and metastasis pathways. Cancer Res. 2011 Jan 15;71(2):473-83.

Tel:781-999-4286 E-mail:info@targetmol.com Address:36 Washington Street,Wellesley Hills,MA 02481