Data Sheet (Cat.No.T35587)

TargetMol

Ganglioside GD1a mixture (sodium salt)

Chemical Properties

CAS No. :	12707-58-3
Formula:	C84H146N4O392Na
Molecular Weight:	1836.1
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	Ganglioside GD1a is a sialic acid-containing glycosphingolipid found in brain, erythrocytes, bone marrow, testis, spleen, and liver. [1] It can be shed from the surface of tumor cells into the microenvironment where it influences tumor-host cell interactions to promote tumor cell proliferation, invasion, and metastasis. Ganglioside GD1a (20 μM) also increases endothelial cell proliferation. Furthermore, ganglioside GD1a has been shown to act as a functional coreceptor for toll-like receptor 2 (TLR2), enabling the recruitment of TLR2 to lipid rafts when bound by a bacterial toxin.[2] Ganglioside GD1a mixture contains ganglioside GD1a molecular species with C18:1 and C20:1 sphingoid backbones.
Targets(IC50)	Others

Solubility Information

Solubility	H2O: Soluble (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	0.5446 mL	2.7232 mL	5.4463 mL
5 mM	0.1089 mL	0.5446 mL	1.0893 mL
10 mM	0.0545 mL	0.2723 mL	0.5446 mL
50 mM	0.0109 mL	0.0545 mL	0.1089 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

Mukherjee, P., Faber, A.C., Shelton, L.M., et al. Thematic review series: Sphingolipids. Ganglioside GM3 suppresses the proangiogenic effects of vascular endothelial growth factor and ganglioside GD1a. J. Lipid Res. 49(5), 929-938 (2008).

Liang, S., Wang, M., Tapping, R.I., et al. Ganglioside GD1a is an essential coreceptor for Toll-like receptor 2 signaling in response to the B subunit of type IIb enterotoxin. J. Biol. Chem. 282(10), 7532-7542 (2007).

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