

N-glycolyl-Ganglioside GM3 Mixture (ammonium salt)

Chemical Properties

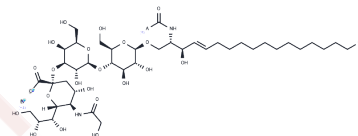
CAS No. : 69345-49-9

Formula: C₆₄H₁₁₇N₂O₂₂NH₄

Molecular Weight: 1284.7

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	N-glycolyl-Ganglioside GM3(NeuGc-GM3) is a form of ganglioside GM3 that contains an N-glycolylated sialic acid (NeuGc).
Targets(IC50)	Others
In vitro	It is not biosynthesized in humans under baseline conditions due to a mutation in CMP-Neu5Ac hydroxylase (CMAH), which converts N-acetyl sialic acid to N-glycolyl sialic acid, but NeuGc can be taken up by human cells via the diet and incorporated into glycolipids, such as ganglioside GM3. 1,2 NeuGc-GM3 impairs differentiation and maturation of dendritic cells in vitro and reduces CD4 expression in non-activated T cells. 1,3 It increases the number of lung tumor nodules formed in a murine Lewis lung carcinoma model. 4 It is found in a variety of human cancers, including breast and lung cancers, as well as pediatric cancers. 1 Levels of NeuGc-GM3 are negatively correlated with the number of mature dendritic cells in patient-derived non-small cell lung cancer (NSCLC) tumor tissue. 5 Anti-NeuGc-GM3 antibodies, able to destroy tumor cells in vitro, have been found in individuals without cancer but not in patients with NSCLC. 1,6 N-glycolyl-Ganglioside GM3 mixture contains ganglioside GM3 molecular species with primarily C22:0, C23:0, and C24:0 fatty acyl chain lengths.

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	0.7784 mL	3.892 mL	7.7839 mL
5 mM	0.1557 mL	0.7784 mL	1.5568 mL
10 mM	0.0778 mL	0.3892 mL	0.7784 mL
50 mM	0.0156 mL	0.0778 mL	0.1557 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

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- van Crujisen, H., Ruiz, M.G., van der Valk, P., et al. Tissue micro array analysis of ganglioside N-glycolyl GM3 expression and signal transducer and activator of transcription (STAT)-3 activation in relation to dendritic cell infiltration and microvessel density in non-small cell lung cancer. *BMC Cancer* 9:180(2009)
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