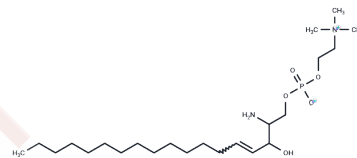


D-erythro/L-threo Lysosphingomyelin (d18:1)

Chemical Properties

CAS No. :	82970-80-7
Formula:	C23H49N2O5P
Molecular Weight:	464.62
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	Lysosphingomyelin is an endogenous bioactive sphingolipid and a constituent of lipoproteins. ^{1,2} It is produced by the removal of the acyl group from sphingomyelin by a deacylase and acts as a precursor in the biosynthesis of sphingosine-1-phosphate . D-erythroLysosphingomyelin is an agonist of the S1P receptors S1P1, S1P2, and S1P3 (EC50s = 167.7, 368.1, and 482.6 nM, respectively, for the human receptors). ³ It is also an agonist of the orphan receptor ovarian cancer G protein-coupled receptor 1 (ORG1) that induces calcium accumulation in cells overexpressing OGR1 (EC50= ~35 nM). ⁴ Levels of D-erythrolysosphingomyelin are increased in skin isolated from patients with atopic dermatitis, as well as postmortem brain from patients with Niemann-Pick disease type A, but not type B. ^{2,5} L-threolysosphingomyelin is also an S1P1-3agonist (EC50s = 19.3, 131.8, and 313.3 nM, respectively). ³ This product is a mixture of D-erythroand L-threolysosphingomyelin.
Targets(IC50)	Others

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.1523 mL	10.7615 mL	21.523 mL
5 mM	0.4305 mL	2.1523 mL	4.3046 mL
10 mM	0.2152 mL	1.0761 mL	2.1523 mL
50 mM	0.043 mL	0.2152 mL	0.4305 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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- Meyer zu Heringdorf, D., Himmel, H.M., and Jakobs, K.H. Sphingosylphosphorylcholine-biological functions and mechanisms of action. *Biochim. Biophys. Acta* 1582(1-3):178-189 (2002)
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