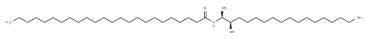
Data Sheet (Cat.No.T38284)

TargetMol

C24 dihydro 1-Deoxyceramide (m18:0/24:0)

Chemical Properties



CAS No. : 1645269-63-1

Formula: C42H85NO2

Molecular Weight: 636.147

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	C24 dihydro 1-Deoxyceramide (m18:0/24:0) is a very long-chain atypical ceramide containing a 1-deoxysphinganine backbone. 1-Deoxysphingolipids are formed when serine palmitoyltransferase condenses palmitoyl-CoA with alanine instead of serine during sphingolipid synthesis.1,2 C24 dihydro 1-Deoxyceramide (m18:0/24:0) has been found in mouse embryonic fibroblasts (MEFs) following application of 1-deoxysphinganine alkyne or 1-deoxysphinganine-d3.3 It has also been found in mouse brain, spinal cord, and sciatic nerve at one, three, and six months of age.4
Targets(IC50)	Others

Solubility Information

Solubility	DMF: 20 mg/mL (31.44 mM),Sonication is recommended. Ethanol:PBS (pH 7.2) (1:1): 0.5 mg/mL (0.79 mM),Sonication is recommended. Ethanol: 30 mg/mL (47.16 mM),Sonication is recommended. DMSO: 20 mg/mL (31.44 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.572 mL	7.8598 mL	15.7196 mL
5 mM	0.3144 mL	1.572 mL	3.1439 mL
10 mM	0.1572 mL	0.786 mL	1.572 mL
50 mM	0.0314 mL	0.1572 mL	0.3144 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

Steiner, R., Saied, E.M., Othman, A., et al. Elucidating the chemical structure of native 1-deoxysphingosine. J. Lipid Res. 57(7), 1194-1203 (2016).
Alecu, I., Othman, A., Penno, A., et al. Cytotoxic 1-deoxysphingolipids are metabolized by a cytochrome P450-dependent pathway. J. Lipid Res. 58(1), 60-71 (2017).
Alecu, I., Tedeschi, A., Behler, N., et al. Localization of 1-deoxysphingolipids to mitochondria induces mitochondrial dysfunction. J. Lipid. Res. 58(1), 42-59 (2017).
Schwartz, N.U., Mileva, I., Gurevich, M., et al. Quantifying 1-deoxydihydroceramides and 1-deoxyceramides in mouse nervous system tissue. Prostaglandins Other Lipid Mediat. 141, 40-48 (2019).