Data Sheet (Cat.No.T38280)

TargetMol

C22 dihydro 1-Deoxyceramide (m18:0/22:0)

Chemical Properties

CAS No. :

Formula:

Molecular Weight:

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	C22 dihydro 1-Deoxyceramide (m18:0/22:0) 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 C22 dihydro 1-Deoxyceramide (m18:0/22:0) has been found in mouse embryonic fibroblasts (MEFs) following application of 1-deoxysphinganine alkyne or 1-deoxysphinganine-d3.3 It has also been found as the most prevalent dihydro deoxyceramide species in mouse brain, spinal cord, and sciatic nerve at one, three, and six months of age.4
Targets(IC50)	Others

Solubility Information

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

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).

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