

Product Data Sheet

Product Name: Sphingosine-13C2-d2 (d18:1)

Cat. No.: GC48089

Chemical Properties

Cas. No. 2692623-81-5

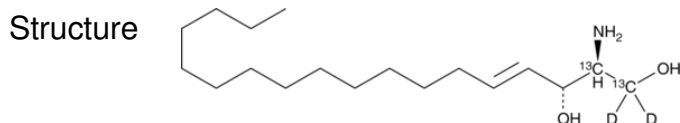
SMILES O[13C]([2H])([2H])[13C@H](N)[C@H](O)/C=C/CCCCCCCCCCCCC

Formula C16[13C]2H35D2NO2 M.Wt 303.5

Solubility Chloroform: soluble, Methanol: soluble Storage Store at -20°C

General For obtaining a higher solubility, please warm the tube at 37 °C and shake it in the tips ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Evaluation sample solution: ship with blue ice All other available size: ship with RT, or Condition blue ice upon request.



Background

Sphingosine-¹³C₂-d₂ (d18:1) is intended for use as an analytical standard for the quantification of sphingosine (d18:1) by GC- or LC-MS. Sphingosine (d18:1) is formed primarily from the breakdown of ceramide.¹ Sphingosine (d18:1) inhibits protein kinase C and phosphatidic acid phosphohydrolase, whereas it activates phospholipase D and diacylglycerol (DAG) kinase.¹ Phosphorylation of sphingosine (d18:1) by sphingosine kinases 1 and 2 (SPHK1, SPHK2) produces sphingosine-1-phosphate, a potent bioactive lipid that exhibits a broad spectrum of biological activities including cell proliferation, survival, migration, cytoskeletal organization, and morphogenesis.^{2,3,4}

1. Hannun, Y.A., Luberto, C., and Argaves, K.M. Enzymes of sphingolipid metabolism: From modular to integrative signaling *Biochemistry* 40(16)4893-4903(2001) 2. Takuwa, Y., Takuwa, N., and Sugimoto, N. The Edg family G protein-coupled receptors for lysophospholipids: Their signaling properties and biological activities *J. Biochem.* 131(6)767-771(2002) 3. Ishii, I., Fukushima, N., Ye, X.,

Caution: Product has not been fully validated for medical applications. For research use only.

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et al. Lysophospholipid receptors: Signaling and biology *Annu. Rev. Biochem.* 73:321-354 (2004) 4. Kluk, M.J., and Hla, T. Signaling of sphingosine-1-phosphate via the S1P/EDG-family of G-protein-coupled receptors *Biochim. Biophys. Acta* 1582(1-3):72-80 (2002)

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