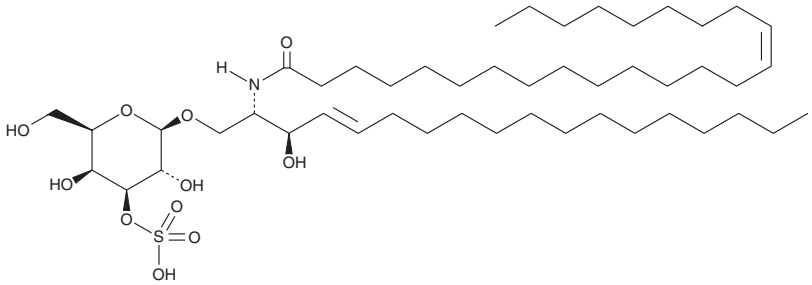
PRODUCT INFORMATION

C24:1 3'-sulfo Galactosylceramide (d18:1/24:1(15Z))

Item No. 24865

CAS Registry No.: 151057-28-2
Formal Name: N-[(1S)-2R-hydroxy-1-[[(3-O-sulfo-β-D-galactopyranosyl)oxy]methyl]-3E-heptadecen-1-yl]-15Z-tetracosenamide
Synonyms: (3'-sulfo)Galβ-Cer(d18:1/24:1), N-Nervonoyl Sulfatide, C24:1 Sulfatide, *cis*-Tetracosenoyl Sulfatide, N-Tetracosenoyl (*cis*-15) Sulfatide
MF: $C_{48}H_{91}NO_{11}S$
FW: 890.3
Purity: ≥98%
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

C24:1 3'-sulfo Galactosylceramide (d18:1/24:1(15Z)) is supplied as a solid. A stock solution may be made by dissolving the C24:1 3'-sulfo galactosylceramide (d18:1/24:1(15Z)) in the solvent of choice. C24:1 3'-sulfo Galactosylceramide (d18:1/24:1(15Z)) is soluble in a 5:1 solution of chloroform:methanol.

Description

C24:1 3'-sulfo Galactosylceramide is a member of the sulfatide class of glycolipids. It is the predominate sulfatide species in mature myelin, and it accumulates at a higher rate than C24 3'-sulfo galactosylceramide (Item No. 24351) in rat cerebellum from seven to 32 days of age when active myelination occurs.[1] It interacts with C-type lectins and immunoglobulin-like receptors with the highest affinity for LMIR5.[2] It induces production of MCP-1 in basophils but not mast cells and increases the activation of NFAT in a reporter assay *via* LMIR5. C24:1 3'-sulfo Galactosylceramide is an immunodominant species in myelin, is bound by CD1d *in vitro*, and increases proliferation in isolated mouse splenocytes.[3] It reduces symptoms and increases survival in a mouse model of chronic relapsing-remitting experimental autoimmune encephalomyelitis (EAE) when used at a dose of 20 µg.[4] It also decreases the number of inflammatory lesions and infiltrating mononuclear cells in the lumbar spinal cord of EAE mice. *As this product is derived from a natural source, there may be variations in the sphingoid backbone.*

References

1. Marbois, B.N., Faull, K.F., Fluharty, A.L., *et al. Biochim. Biophys. Acta.* **1484(1)**, 59-70 (2000).
2. Phongsisay, V., Iizasa, E., Hara, H., *et al. Mol. Immunol.* **63(2)**, 595-599 (2015).
3. Zajonc, D.M., Maricic, I., Wu, D., *et al. J. Exp. Med.* **202(11)**, 1517-1526 (2005).
4. Maricic, I., Halder, R., Bischof, F., *et al. J. Immunol.* **193(3)**, 1035-1046 (2014).

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