

# PRODUCT INFORMATION



## C16 3'-sulfo Galactosylceramide (d18:1/16:0)

Item No. 24862

CAS Registry No.: 89771-78-8

Formal Name: N-[(1S,2R,3E)-2-hydroxy-1-[[3-O-sulfo-β-D-galactopyranosyl]oxy]methyl]-3-heptadecen-1-yl]-hexadecanamide

Synonyms: (3'-sulfo)Galβ-Cer(d18:1/16:0), N-Hexadecanoyl-Sulfatide, C16 Sulfatide

MF: C<sub>40</sub>H<sub>77</sub>NO<sub>11</sub>S

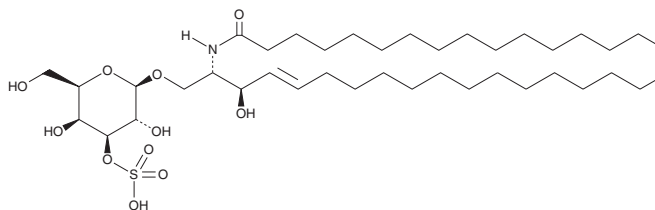
FW: 780.1

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

C16 3'-sulfo Galactosylceramide (d18:1/16:0) is supplied as a solid. A stock solution may be made by dissolving the C16 3'-sulfo galactosylceramide (d18:1/16:0) in the solvent of choice. C16 3'-sulfo Galactosylceramide (d18:1/16:0) is soluble in a 2:1 solution of chloroform:methanol.

### Description

C16 3'-sulfo Galactosylceramide is a member of the sulfatide class of glycolipids. It is one of the most abundant sulfatides found in porcine brain and plasma.<sup>1</sup> Levels of short-chain sulfatides, including C16-C20 3'-sulfo galactosylceramides, decrease throughout development in mice.<sup>2</sup> C16 3'-sulfo Galactosylceramide inhibits retinal ganglion cell neurite outgrowth *in vitro*.<sup>3</sup> It is increased in dried urine spots and dried blood spots from patients with metachromatic leukodystrophy (MLD).<sup>4</sup> C16 3'-sulfo Galactosylceramide has been used as an internal standard for the quantification of sulfatides in rat cerebellum and isolated white matter from patients with multiple sclerosis.<sup>5</sup>

### References

1. Saville, J.T., Smith, N.J.C., Fletcher, J.M., *et al.* Quantification of plasma sulfatides by mass spectrometry: Utility for metachromatic leukodystrophy. *Anal. Chim. Acta* **955**, 79-85 (2017).
2. Isaac, G., Pernber, Z., Gieselmann, V., *et al.* Sulfatide with short fatty acid dominates in astrocytes and neurons. *FEBS J.* **273**(8), 1782-1790 (2006).
3. Winzeler, A.M., Mandemakers, W.J., Sun, M.Z., *et al.* The lipid sulfatide is a novel myelin-associated inhibitor of CNS axon outgrowth. *J. Neurosci.* **31**(17), 6481-6492 (2011).
4. Barcenas, M., Suhr, T.R., Scott, C.R., *et al.* Quantification of sulfatides in dried blood and urine spots from metachromatic leukodystrophy patients by liquid chromatography/electrospray tandem mass spectrometry. *Clin. Chim. Acta* **433**, 39-43 (2014).
5. Marbois, B.N., Faull, K.F., Fluharty, A.L., *et al.* Analysis of sulfatide from rat cerebellum and multiple sclerosis white matter by negative ion electrospray mass spectrometry. *Biochim. Biophys. Acta.* **1484**(1), 59-70 (2000).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

#### WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 12/07/2022

#### CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD  
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897

[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM

WWW.CAYMANCHEM.COM