

PRODUCT INFORMATION



C16 Globotriaosylceramide-d₉ (d18:1/16:0-d₉)

Item No. 31199

CAS Registry No.: 2738376-84-4
Formal Name: N-[(1S,2R,3E)-1-[[[O-α-D-galactopyranosyl-(1→4)-O-β-D-galactopyranosyl-(1→4)-β-D-glucopyranosyl]oxy]methyl]-2-hydroxy-3-heptadecen-1-yl]-hexadecanamide

Synonyms: C16 Ceramide Trihexoside (d18:1/16:0-d₉), Gb₃ (d18:1/16:0-d₉), N-Hexadecanoyl-d₉ (13,13,14,14,15,15,16,16,16)-ceramide Trihexoside

MF: C₅₂H₈₈D₉NO₁₈

FW: 1,033.4

Chemical Purity: ≥95% (C16 Globotriaosylceramide)

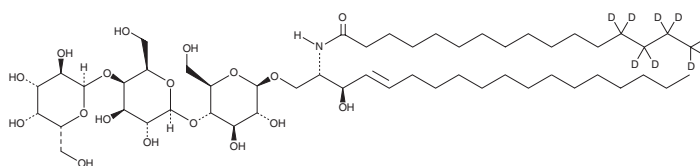
Deuterium

Incorporation: ≥99% deuterated forms (d₁-d₉); ≤1% d₀

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 Globotriaosylceramide-d₉ (d18:1/16:0-d₉) is intended for use as an internal standard for the quantification of C16 globotriaosylceramide (Item No. 24875) by GC- or LC-MS. The accuracy of the sample weight in this vial is between 5% over and 2% under the amount shown on the vial. If better precision is required, the deuterated standard should be quantitated against a more precisely weighed unlabeled standard by constructing a standard curve of peak intensity ratios (deuterated versus unlabeled).

C16 Globotriaosylceramide-d₉ (d18:1/16:0-d₉) is supplied as a solid. A stock solution may be made by dissolving the C16 globotriaosylceramide-d₉ (d18:1/16:0-d₉) in the solvent of choice, which should be purged with an inert gas. C16 Globotriaosylceramide-d₉ (d18:1/16:0-d₉) is soluble in a 2:1:0.2 solution of chloroform:methanol:DI water.

Description

C16 Globotriaosylceramide (d18:1/16:0) is an endogenous sphingolipid found in mammalian cell membranes that is synthesized from C16 lactosylceramide (Item No. 24352).¹ C16 Globotriaosylceramide acts as a receptor for Shiga toxin in B cell-derived Raji cells and THP-1 monocytes.² It accumulates in endothelial cells, pericytes, vascular smooth muscle cells, renal epithelial cells, dorsal ganglia neuronal cells, and myocardial cells in patients with Fabry disease, a lysosomal storage disorder.³ Plasma levels of C16 globotriaosylceramide are increased in patients with ovarian carcinoma compared to those with benign ovarian tumors or uterine fibroids.⁴ As this product is derived from a natural source, there may be variations in the sphingoid backbone.

References

1. Lingwood, C.A. and Branch, D.R. *Discov. Med.* **11(59)**, 303-313 (2011).
2. Hoffmann, P., Hülsewig, M., Duvar, S., et al. *Rapid Commun. Mass. Spectrom.* **24(15)**, 2295-2304 (2010).
3. Feldt-Rasmussen, U., Rasmussen, A.K., Mersebach, H., et al. *Eur. J. Endocrinol.* **146(6)**, 741-742 (2002).
4. Hou, Y., Li, J., Xie, H., et al. *Metabolomics* **12(18)** (2015).

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.

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