

PRODUCT INFORMATION



C18 Globotriaosylceramide (d18:1/18:0)

Item No. 24877

CAS Registry No.: 69283-33-6

Formal Name: N-[(1S,2R,3E)-1-[[[O- α -D-galactopyranosyl-(1 \rightarrow 4)-O- β -D-galactopyranosyl-(1 \rightarrow 4)- β -D-glucopyranosyl]oxy]methyl]-2-hydroxy-3-heptadecen-1-yl]-octadecanamide

Synonyms: C18 Ceramide Trihexoside (d18:1/18:0), Gb₃(d18:1/18:0), N-Octadecanoyl-ceramide trihexoside

MF: C₅₄H₁₀₁NO₁₈

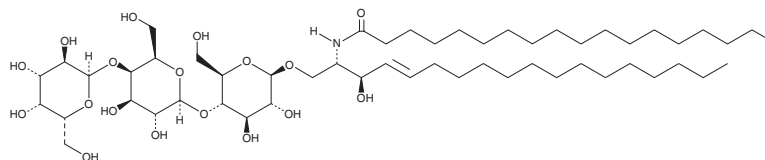
FW: 1,052.4

Purity: \geq 98%

Supplied as: A solid

Storage: -20°C

Stability: \geq 4 years



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

Laboratory Procedures

C18 Globotriaosylceramide (d18:1/18:0) is supplied as a solid. A stock solution may be made by dissolving the C18 globotriaosylceramide (d18:1/18:0) in the solvent of choice. C18 Globotriaosylceramide (d18:1/18:0) is soluble in DMSO, methanol (hot), and a 2:1 solution of chloroform:methanol.

Description

C18 Globotriaosylceramide is an endogenous sphingolipid found in mammalian cell membranes that is synthesized from lactosylceramide (Item No. 16983).¹ It inhibits aggregation of human neutrophils induced by phorbol 12-myristate 13-acetate (PMA; Item No. 10008014) when used at a concentration of 1 μ M.² C18 Globotriaosylceramide acts as a receptor for Shiga toxin in B cell-derived Raji cells and THP-1 monocytes.³ It accumulates in the brain, heart, kidney, liver, lung, and spleen in a mouse model of Fabry disease, a lysosomal storage disorder characterized by a deficiency in the enzyme α -galactosidase A.⁴ C18 Globotriaosylceramide also accumulates in endothelial cells, pericytes, vascular smooth muscle cells, renal epithelial cells, dorsal ganglia neuronal cells, and myocardial cells in patients with Fabry disease.⁵ 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. Fiore, S., Nicolaou, K.C., Caulfield, T., et al. *Biochem. J.* **266(1)**, 25-31 (1990).
3. Hoffmann, P., Hülsewig, M., Duvar, S., et al. *Rapid Commun. Mass. Spectrom.* **24(15)**, 2295-2304 (2010).
4. Kamani, M.A., Provençal, P., Boutin, M., et al. *Future Sci. OA.* **2(4)**, FS0147 (2016).
5. Feldt-Rasmussen, U., Rasmussen, A.K., Mersebach, H., et al. *Eur. J. Endocrinol.* **146(6)**, 741-742 (2002).

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, 12/01/2022

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