

PRODUCT INFORMATION



C24 Globotriaosylceramide (d18:1/24:0)

Item No. 45584

CAS Registry No.: 82005-99-0

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]-tetracosanamide

Synonyms: C24 Ceramide Trihexoside (d18:1/24:0), Gb₃ (d18:1/24:0), N-Tetracosanoyl-ceramide trihexoside

MF: C₆₀H₁₁₃NO₁₈

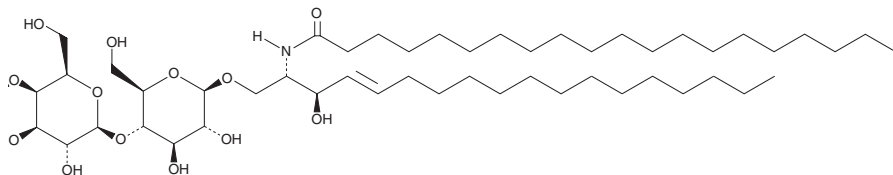
FW: 1,136.6

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

C24 Globotriaosylceramide (d18:1/24:0) is supplied as a solid. A stock solution may be made by dissolving the C24 globotriaosylceramide (d18:1/24:0) in the solvent of choice, which should be purged with an inert gas. C24 Globotriaosylceramide (d18:1/24:0) is soluble ($\geq$ 10 mg/ml) in chloroform:methanol (2:1).

Description

C24 Globotriaosylceramide (d18:1/24:0) is a glycosphingolipid found in mammalian cell membranes.¹ It is the P^k antigen in the human P1PK blood group system.² C24 Globotriaosylceramide (d18:1/24:0) acts as a receptor for Shiga and Shiga-like toxins *in vitro* and *in vivo*.³ It is a substrate of the enzyme α -galactosidase A that accumulates in endothelial, vascular smooth muscle, renal, epithelial, myocardial, and dorsal ganglia neuronal cells in Fabry disease, a lysosomal storage disorder characterized by a deficiency in α -galactosidase A.⁴ C24 Globotriaosylceramide (d18:1/24:0) mediates CD4-dependent fusion of HIV-1 with human erythrocyte cell membrane microdomains by binding HIV-1 glycoprotein 120 (gp120) and facilitates gp120-coreceptor interactions.⁵ As this product is derived from a natural source, there may be variations in the sphingoid backbone.

References

1. Nicolaou, K.C., Caulfield, H., Kataoka, H., et al. *J. Am. Chem. Soc.* **110**(23), 7910-7912 (1988).
2. Naiki, M. and Marcus, D.M. *Biophys. Res. Commun.* **60**(3), 1105-1111 (1974).
3. Zhang, D.-M., Lin, S.-M., Lau, C.-W., et al. *Planta Med.* **76**(16), 1814-1819 (2010).
4. Feldt-Rasmussen, U., Rasmussen, A. K., Mersebach, H., et al. *Eur. J. Endocrinol.* **146**(6), 741-742 (2002).
5. Hammache, D., Yahi, N., Maresca, M., et al. *J. Virol.* **73**(6), 5244-5248 (1999).

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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