

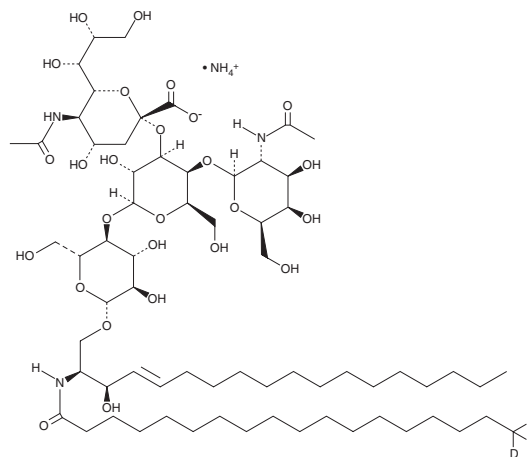
PRODUCT INFORMATION



C18 Ganglioside G_{M2}-d₃ (d18:1/18:0-d₃) (ammonium salt)

Item No. 24849

CAS Registry No.: 2692623-87-1
Formal Name: N-[(1S,2R,3E)-1-[[[O-2-(acetylamino)-2-deoxy-β-D-galactopyranosyl-(1→4)-O-[N-acetyl-α-neuraminosyl-(2→3)]-O-β-D-galactopyranosyl-(1→4)-β-D-glucopyranosyl]oxy]methyl]-2-hydroxy-3-heptadecen-1-yl]-octadecanamide-18,18,18-d₃, monoammonium salt
Synonyms: C18 G_{M2}-d₃, N-omega-CD₃-Octadecanoyl monosialoganglioside G_{M2}, Monosialoganglioside G_{M2}-d₃, N-Stearoyl Monosialoganglioside G_{M2}-d₃
MF: C₆₇H₁₁₇D₃N₃O₂₆ • NH₄
FW: 1,404.7
Chemical Purity: ≥98% (C18 Ganglioside G_{M2} (d18:1/18:0) (ammonium salt))
Deuterium Incorporation: ≥99% deuterated forms (d₁-d₃); ≤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

C18 Ganglioside G_{M2}-d₃ (d18:1/18:0-d₃) (ammonium salt) (Item No. 24849) is intended for use as an internal standard for the quantification of ganglioside G_{M2} 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).

C18 Ganglioside G_{M2}-d₃ (d18:1/18:0-d₃) (ammonium salt) is supplied as a solid. A stock solution may be made by dissolving the C18 ganglioside G_{M2}-d₃ (d18:1/18:0-d₃) (ammonium salt) in the solvent of choice. C18 Ganglioside G_{M2}-d₃ (d18:1/18:0-d₃) (ammonium salt) is soluble in a 2:1:0.1 solution of chloroform:methanol:DI water.

Description

C18 Ganglioside G_{M2} is a monosialylated ganglioside found in the mammalian brain where it is localized to the cell membrane.¹ It accumulates in Tay-Sachs and Sandhoff disease, which are neurodegenerative disorders characterized by deficiency of lysosomal β-hexosaminidase A and B, respectively.² Ganglioside G_{M2} disrupts the function of immune cells and, when used at a concentration of 25 μM, increases migration and invasion of SK-RC-45 cells with no effect on proliferation.³ As this product is derived from a natural source, there may be variations in the sphingoid backbone.

References

1. Schnaar, R.L. *J. Mol. Biol.* **428**(16), 3325-3336 (2016).
2. Baek, R.C., Martin, D.R., Cox, N.R., et al. *Lipids* **44**(3), 197-205 (2009).
3. Kundu, M., Mahata, B., Banerjee, A., et al. *Biochim. Biophys. Acta.* **1863**(7 Pt A), 1472-1489 (2016).

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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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