

PRODUCT INFORMATION



Lyso-Monosialoganglioside G_{M2} (ammonium salt)

Item No. 33073

Formal Name: (2S,3R,4E)-2-amino-3-hydroxy-4-octadecen-1-yl 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-glucopyranoside, monoammonium salt

Synonyms: Lysoganglioside G_{M2}, Lyso-G_{M2}, lyso-Monosialoganglioside G_{M2}

MF: C₄₉H₈₆N₃O₂₅ • NH₄

FW: 1,135.3

Purity: ≥98%

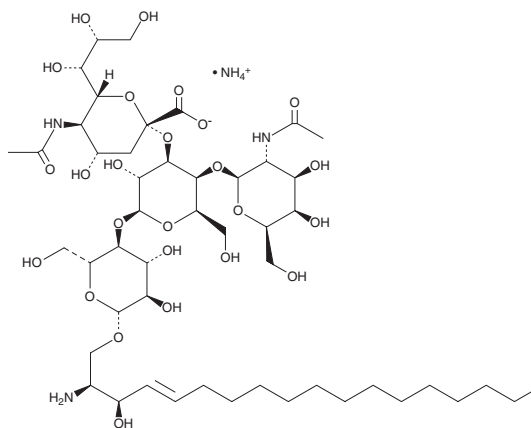
Supplied as: A solid

Storage: -20°C

Stability: ≥4 years

Special Conditions: Forms micellar solution in water

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



Laboratory Procedures

Lyso-monosialoganglioside G_{M2} (Lyso-G_{M2}) (ammonium salt) is supplied as a solid. A stock solution may be made by dissolving the lyso-G_{M2} (ammonium salt) in the solvent of choice, which should be purged with an inert gas. Lyso-G_{M2} (ammonium salt) is soluble in a 2:1:0.1 solution of chloroform:methanol:DI water.

Description

Lyso-G_{M2} is a form of ganglioside G_{M2} (Item No. 31710) that is lacking the fatty acyl group. Lyso-G_{M2} inhibits PKC in a cell-free assay (IC₅₀ = 50 μM).¹ Levels of lyso-G_{M2} are increased in the gray matter of postmortem brain samples from patients with Sandhoff disease or Tay-Sachs disease, as well as in a mouse model of Sandhoff disease.^{2,3} As this product is derived from a natural source, there may be variations in the sphingoid backbone.

References

1. Hannun, Y.A. and Bell, R.M. Lysosphingolipids inhibit protein kinase C: Implications for the sphingolipidoses. *Science* **235**(4789), 670-674 (1987).
2. Kobayashi, T., Goto, I., Okada, S., et al. Accumulation of lysosphingolipids in tissues from patients with GM1 and GM2 gangliosidoses. *J. Neurochem.* **59**(4), 1452-1458 (1992).
3. Kodama, T., Togawa, T., Tsukimura, T., et al. Lyso-GM2 ganglioside: A possible biomarker of Tay-Sachs disease and Sandhoff disease. *PLoS One* **6**(12), e29074 (2011).

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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