

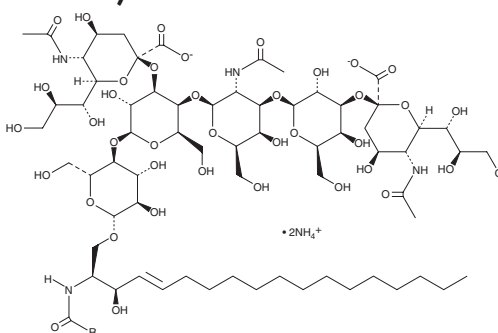
PRODUCT INFORMATION



Ganglioside G_{D1a} (porcine) (ammonium salt)

Item No. 31707

CAS Registry No.: 12707-58-3
Synonyms: Ganglioside B₁, Ganglioside G₃
MF: C₈₄H₁₄₆N₄O₃₉ • 2NH₄ (for stearoyl)
FW: 1872.2
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

Ganglioside G_{D1a} (porcine) (ammonium salt) is supplied as a solid. A stock solution may be made by dissolving the ganglioside G_{D1a} (porcine) (ammonium salt) in the solvent of choice, which should be purged with an inert gas. Ganglioside G_{D1a} (porcine) (ammonium salt) is soluble in a 2:1:0.1 solution of chloroform:methanol:DI water. Ganglioside G_{D1a} (porcine) (ammonium salt) forms a micellar solution in water. We do not recommend storing the aqueous solution for more than one day.

Description

Ganglioside G_{D1a} is a sialic acid-containing glycosphingolipid found in brain, erythrocytes, bone marrow, testis, spleen, and liver.¹ It can be shed from the surface of tumor cells into the microenvironment where it influences tumor-host cell interactions to promote tumor cell proliferation, invasion, and metastasis. Ganglioside G_{D1a} (20 μM) also increases endothelial cell proliferation. Furthermore, ganglioside G_{D1a} has been shown to act as a functional coreceptor for toll-like receptor 2 (TLR2), enabling the recruitment of TLR2 to lipid rafts when bound by a bacterial toxin.² This product contains ganglioside GD1a molecular species with primarily C18:0 fatty acyl chain lengths. As this product is derived from a natural source, there may be variations in the sphingoid backbone.

References

1. Mukherjee, P., Faber, A.C., Shelton, L.M., *et al.* Thematic review series: Sphingolipids. Ganglioside GM3 suppresses the proangiogenic effects of vascular endothelial growth factor and ganglioside GD1a. *J. Lipid Res.* **49**(5), 929-938 (2008).
2. Liang, S., Wang, M., Tapping, R.I., *et al.* Ganglioside GD1a is an essential coreceptor for Toll-like receptor 2 signaling in response to the B subunit of type IIb enterotoxin. *J. Biol. Chem.* **282**(10), 7532-7542 (2007).

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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