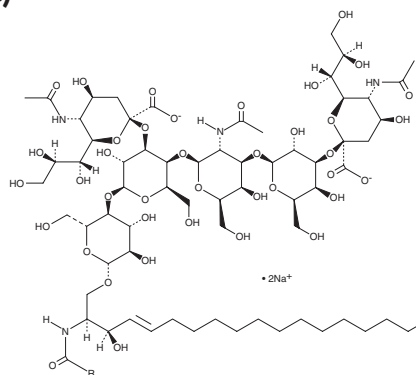


PRODUCT INFORMATION



Ganglioside G_{D1a} (bovine brain) (sodium salt) Item No. 15585

CAS Registry No.: 12707-58-3
Formal Name: ganglioside G_{D1a}, disodium salt
Synonyms: Disialoganglioside G_{D1a}, Ganglioside B₁, Ganglioside G₃
MF: C₈₄H₁₄₆N₄O₃₉ • 2Na (for stearoyl)
FW: 1,836.1
Purity: ≥98%
Supplied as: A lyophilized powder
Storage: -20°C
Stability: ≥4 years



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

Laboratory Procedures

Ganglioside G_{D1a} (bovine brain) (sodium salt) is supplied as a lyophilized powder. A stock solution may be made by dissolving the ganglioside G_{D1a} (bovine brain) (sodium salt) 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 G_{D1a} 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. [Matreya, LLC. Catalog No. 1556]

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. Moore, M.L., Chi, M.H., Goleniewska, K., *et al.* Differential regulation of GM1 and asialo-GM1 expression by T cells and natural killer (NK) cells in respiratory syncytial virus infection. *Viral Immunol.* **21(3)**, 327-339 (2008).

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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