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- Mindermengenzuschlag
- Trockeneiszuschlag
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- Expressversand

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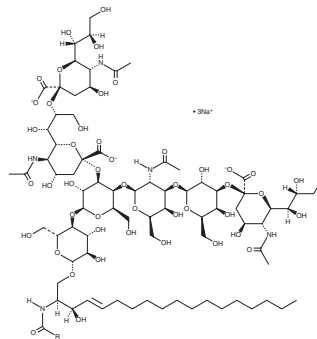
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PRODUCT INFORMATION



Ganglioside G_{T1b} Mixture (sodium salt) Item No. 15588

Synonym: Ganglioside G₁ Mixture
MF: C₉₅H₁₆₂N₅O₄₇ • 3Na (for stearoyl)
FW: 2,195.3
Purity: ≥98%
Supplied as: A lyophilized solid
Storage: -20°C
Stability: ≥2 years
Special Conditions: Hygroscopic. Protect from moisture.



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

Laboratory Procedures

Ganglioside G_{T1b} mixture (sodium salt) is supplied as a lyophilized solid. A stock solution may be made by dissolving the ganglioside G_{T1b} mixture (sodium salt) in the solvent of choice. Ganglioside G_{T1b} mixture (sodium salt) is soluble in water (micellar aggregates) or 2:1 chloroform:methanol.

Description

Ganglioside G_{T1b} is a trisialoganglioside that is characterized by having two sialic residues linked to the inner galactose unit. It binds to the neurotoxins botulinum toxin serotype A (BTxA), BTxA heavy chain, and tetanus toxin with IC₅₀ values of 11, 0.74, and 7.2 μM, respectively.¹ Ganglioside G_{T1b}-containing liposomes bind to the major coat protein VP1 from Merkel cell polyomavirus (MCPyV), which has been identified in Merkel cell carcinomas, identifying ganglioside G_{T1b} as a putative MCPyV receptor.² Ganglioside G_{T1b} decreases production of IL-6, IL-10, IgG, IgM, and IgA in human peripheral blood mononuclear cells (PBMCs) by 31.4, 30.5, 60, 59.5, and 58%, respectively, when used at a concentration of 10 μM.³ Ganglioside G_{T1b} mixture contains ganglioside G_{T1b} molecular species with C18:1 and C20:1 sphingoid backbones.

References

1. Schengrund, C.-L., DasGupta, B.R., and Ringler, N.J. Binding of botulinum and tetanus neurotoxins to ganglioside GT1b and derivatives thereof. *J. Neurochem.* **57(3)**, 1024-1032 (1991).
2. Erickson, K.D., Garcea, R.L., and Tsai, B. Ganglioside GT1b is a putative host cell receptor for the Merkel cell polyomavirus. *J. Virol.* **83(19)**, 10275-10279 (2009).
3. Kanda, N. and Tamaki, K. Ganglioside GT1b suppresses immunoglobulin production by human peripheral blood mononuclear cells. *Immunology* **96(4)**, 628-633 (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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