Ganglioside GT1b. trisodium salt (bovine brain)

Brain ganglioside

Gangliosides consist of a ceramide moiety, an oligosaccharide head group, and one or more sialic acids. They are involved in a variety of cellular functions acting as cell adhesion receptors and immunological receptors via the binding of lectins; contributing to cell differentiation, cell signaling, and oncogenesis; participating in myelin stability and nerve regeneration; and operating as an entry point for toxins and viruses. Ganglioside GT1b consists of a tetra-saccharide core with two sialic acid on the internal galactose and an extra sialic acid on the non-reducing terminal galactose. Ganglioside GT1b prevents neurotoxicity of glutamate on neuronal cells and binds to the neurotoxins Botulinum Toxin serotype A (BTxA), BTxA heavy chain, and Tetanus Toxin with respective IC50 values of 11, 0.74, and 7.2 µM. Treatment of human PBMC with Ganglioside GT1b is associated with a decrease in IgA, IgG, IgM, IL-6, and IL-10 levels.

Citations: 7

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Ordering Information

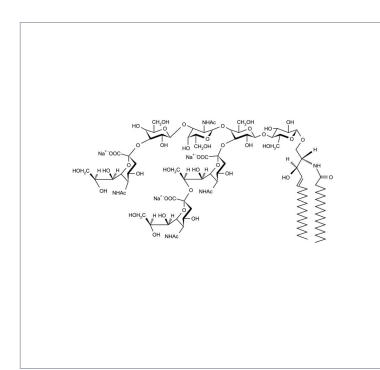
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ALX-302-011-M001	1mg
ALX-302-011-M005	5mg

Manuals, SDS & CofA

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- Highly pure Ganglioside GQ1b isolated from bovine brain
- Used for the differentiation of a variety of cells





Handling & Storage

Use/Stability As indicated on product label or CoA when stored as recommended.

Handling Protect from moisture.

Long Term Storage -20°C

Shipping Ambient Temperature

Regulatory Status RUO - Research Use Only

Product Details

Alternative Name GT1b . 3Na (bovine brain), Trisialoganglioside GT1b . 3Na

(bovine brain)

Appearance White solid.

Couple Target Clostridium botulinum, Clostridium tetani

Formula $C_{95}H_{162}N_5O_{47}$. 3Na

Identity Confirmed by MS.

MW 2126.3 . 69.0 (calculated on sphingosine C18:1 and stearic

acid)

Purity ≥98% (TLC)

 $(2\rightarrow 3)$]- β -Gal $(1\rightarrow 3)$ - β -GalNAc- $(1\rightarrow 4)$ -[α -Neu5Ac- $(2\rightarrow 8)$ - α -

Neu5Ac- $(2\rightarrow 3)$]- β -Gal- $(1\rightarrow 4)$ - β -Glc- $(1\rightarrow 1')$ -Cer]

Solubility Soluble in chloroform/methanol/DI water, 2:1:0.1; forms

micellar solution in water.

Source Bovine brain

