

Ganglioside GQ1b . tetrasodium 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 GQ1b consists of a tetra-saccharide core with two sialic acid on the internal galactose and two sialic acid on the non-reducing terminal galactose. Ganglioside GQ1b promotes the differentiation of human neuroblastoma cells, murine embryonic stem cells via the activation of the ERK1/2 pathway, and murine keratinocytes via phosphoinositide turnover.

Citations: 2

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Ordering Information

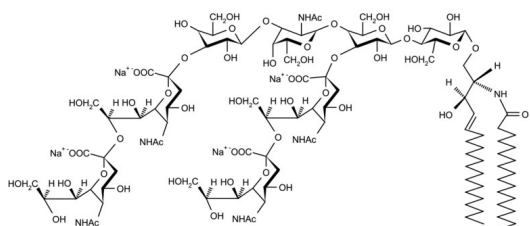
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ALX-302-012-MC01	0.1mg
ALX-302-012-MC05	0.5mg

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. If stored at -20°C the product is stable for at least 2 years. After reconstitution the solution should be stored at -20°C and is stable for at least 1 year.
Long Term Storage	-20°C
Shipping	Ambient Temperature

Regulatory Status

RUO - Research Use Only

Product Details

Alternative Name	GQ1b . 4Na (bovine brain), Tetrasialoganglioside GQ1b . 4Na (bovine brain)
Appearance	Lyophilized.
CAS	68652-37-9
Formula	$C_{106}H_{178}N_6O_{55} \cdot 4Na$
MW	2416.6 . 92.0 (calculated on sphingosine C18:1 and stearic acid)
Purity	≥98% (HPTLC)
Sequence	$[II^3(Neu5Ac)_2, IV^3(Neu5Ac)_2 GgOse_4 Cer] [[\alpha\text{-}Neu5Ac\text{-}(2\rightarrow 8)\text{-}\alpha\text{-}Neu5Ac\text{-}(2\rightarrow 3)]\text{-}\beta\text{-}Gal(1\rightarrow 3)\text{-}\beta\text{-}GalNAc\text{-}(1\rightarrow 4)\text{-}[\alpha\text{-}Neu5Ac\text{-}(2\rightarrow 8)\text{-}\alpha\text{-}Neu5Ac\text{-}(2\rightarrow 3)]\text{-}\beta\text{-}Gal\text{-}(1\rightarrow 4)\text{-}\beta\text{-}Glc(1\rightarrow 1')\text{-}Cer]$
Solubility	Soluble in biological buffers, DMSO, or water.
Source	Bovine brain



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