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

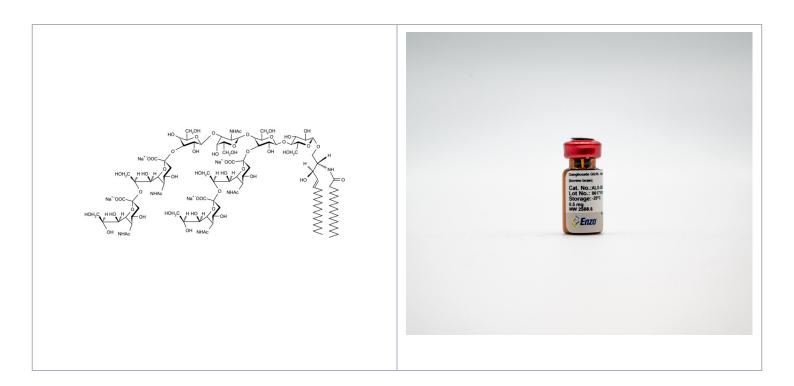
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ALX-302-012-MC01	0.1mg
ALX-302-012-MC05	0.5mg

Manuals, SDS & CofA

View Online »

- 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

 $\mathbf{Formula} \qquad \qquad \mathbf{C_{106}H_{178}N_6O_{55}} \ . \ 4\mathbf{Na}$

MW 2416.6 . 92.0 (calculated on sphingosine C18:1 and stearic

acid)

Purity ≥98% (HPTLC)

Sequence $[II^3(Neu5Ac)_2, IV^3(Neu5Ac)_2GgOse_4Cer][[\alpha-Neu5Ac-4]]$

 $(2\rightarrow 8)$ - α -Neu5Ac- $(2\rightarrow 3)$]- 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→1')-Cer]

Solubility Soluble in biological buffers, DMSO, or water.

Source Bovine brain

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