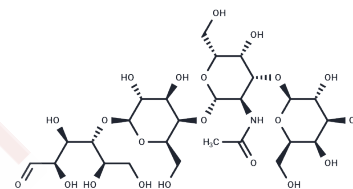


## Gangliotetraose

## Chemical Properties

CAS No. :	75645-24-8
Formula:	C <sub>26</sub> H <sub>45</sub> N <sub>O</sub> <sub>21</sub>
Molecular Weight:	707.63
Storage:	Powder: -20°C for 3 years   In solvent: -80°C for 1 year Actual storage temperature shall be subject to the COA.



## Biological Description

Description	Gangliotetraose (Gg4), a tetrasccharide, predominantly comprises GM1 and its sialylated derivatives, which play a crucial role in modulating nuclear Ca <sup>2+</sup> efflux and maintaining lower nuclear Ca <sup>2+</sup> levels in differentiated neurons. Moreover, GM1 influences neuronal plasticity, repair mechanisms, and neurotrophin release in the brain [1] [2].
In vitro	Gangliotetraose (GM1) (10 μM; 1 h) enhances pheochromocytoma PC12 cell survival under hydrogen peroxide-induced oxidative stress (1 mM; 2 h), concurrently reducing reactive oxygen species accumulation and preventing oxidative inactivation of the Na <sup>+</sup> , K <sup>+</sup> -ATPase enzyme [3].
In vivo	Administered intraperitoneally at a dosage of 30 mg/kg on days 5, 11, 42, and 73, Gangliotetraose (GM1) promotes the regrowth of nigrostriatal dopaminergic neurons within the rat central nervous system following unilateral hemitransection [5].

## Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.4132 mL	7.0658 mL	14.1317 mL
5 mM	0.2826 mL	1.4132 mL	2.8263 mL
10 mM	0.1413 mL	0.7066 mL	1.4132 mL
50 mM	0.0283 mL	0.1413 mL	0.2826 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

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