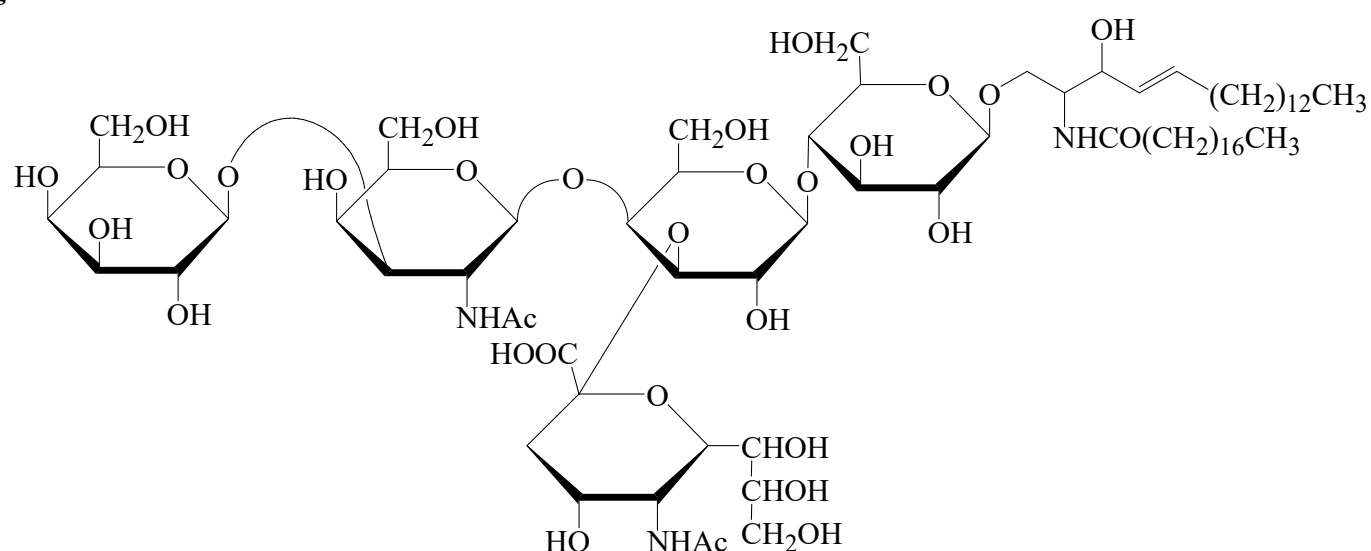




>>Entry Name: Gangliosides



Related CAS Registry Numbers(s): 19553-76-5 19600-01-2 54827-14-4 59247-13-1 62010-37-1 69345-49-9 71012-19-6 85305-87-9 85305-88-0 89678-50-2

General Statement: A large class of glycosphingolipids composed of hexoses, Sphingosine, fatty acids and sialic acids. The differences between the gangliosides are mainly in the carbohydrate moieties. Four major gangliosides referred to as G_{M1} (illus.), D_{D1a} , G_{D1b} , G_{T1b}

Biological Source: Found in the CNS and widely distributed in other tissues

Use/Importance: Gangliosides are the main cause of cell surface negative charge. They are also thought to be involved in many different cell functions e.g. metabolism, growth and malignant transformation. A monoganglioside prep. has been used in the treatment of cerebrovascular disorders

>>Variant: Ganglioside G_{M1}

Synonym(s): Ganglioside G_1 . Siagoside. Sygen

CAS Registry Number: 37758-47-7

Molecular Formula: $C_{73}H_{131}N_3O_{31}$

Molecular Weight: 1546.839

Accurate Mass: 1545.876662

Percentage Composition: C 56.68%; H 8.54%; N 2.72%; O 32.06%

Biological Source: Isol. from bovine brain. Constit. of mammalian vertebrate cell membranes. Particularly abundant in the central and peripheral nervous systems

Biological Use/Importance: Used in the treatment of peripheral neuropathies, cerebrovascular disorders and spinal cord injury. Positive effects still need to be confirmed. Now used in the treatment of Parkinson's disease

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