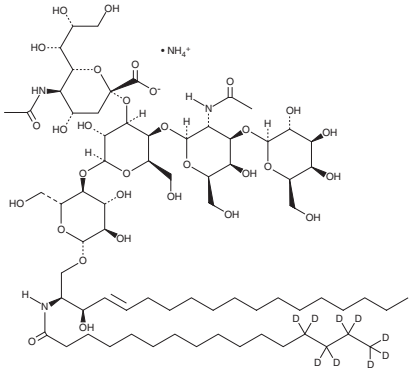
PRODUCT INFORMATION

C16 Ganglioside G_{M1}-d_9 (d18:1/16:0-d_9) (ammonium salt)

Item No. 31195

CAS Registry No.: 2750534-76-8
Formal Name: N-[(1S,2R,3E)-1-[[[O-β-D-galactopyranosyl-(1→3)-O-2-(acetylamino)-2-deoxy-β-D-galactopyranosyl-(1→4)-O-[N-acetyl-α-neuraminosyl-(2→3)]-O-β-D-galactopyranosyl-(1→4)-β-D-glucopyranosyl]oxy]methyl]-2-hydroxy-3-heptadecen-1-yl]-hexadecanamide-13,13,14,14,15,15,16,16,16-d_9, monoammonium salt
Synonyms: C16 G_{M1}-d_9, N-Hexadecanoyl-d_9 (13,13,14,14,15,15,16,16,16)-monosialoganglioside G_{M1}
MF: $C_{71}H_{117}D_9N_3O_{31} \bullet NH_4$
FW: 1,544.9
Chemical Purity: ≥95% (C16 Ganglioside G_{M1})
Deuterium Incorporation: ≥99% deuterated forms (d_1-d_9); ≤1% d_0
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

C16 Ganglioside G_{M1}-d_9 (d18:1/16:0-d_9) (ammonium salt) is intended for use as an internal standard for the quantification of C16 ganglioside G_{M1} by GC- or LC-MS. The accuracy of the sample weight in this vial is between 5% over and 2% under the amount shown on the vial. If better precision is required, the deuterated standard should be quantitated against a more precisely weighed unlabeled standard by constructing a standard curve of peak intensity ratios (deuterated *versus* unlabeled).

Description

Ganglioside G_{M1} is a monosialylated ganglioside and the prototypic ganglioside for those containing one sialic acid residue.[1,2] C16 Ganglioside G_{M1} (d18:1/16:0) is a monosialylated ganglioside that contains a 16-carbon saturated acyl chain. It has been found in the brain of wild-type mice and mice lacking the gene for α-N-acetylneuraminide α-2,8-sialyltransferase (*St8sia1null*) but not those lacking the gene for β-1,4-N-acetylgalactosaminyltransferase 1 (*B4galnt1null*).[3] *As this product is derived from a natural source, there may be variations in the sphingoid backbone.*

References

1. Kolter, T. Ganglioside biochemistry. *ISRN Biochem.* 506160 (2012).
2. Mocchetti, I. Exogenous gangliosides, neuronal plasticity and repair, and the neurotrophins. *Cell Mol. Life Sci.* **62(19-20)**, 2283-2294 (2005).
3. Mlinac, K., Fabris, D., Vukelić, Ž., *et al.* Structural analysis of brain ganglioside acetylation patterns in mice with altered ganglioside biosynthesis. *Carbohydr. Res.* **382**, 1-8 (2013).

CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.**CAYMANCHEM**.COM