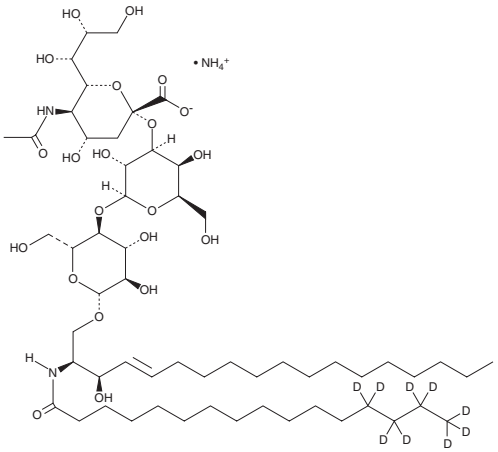
PRODUCT INFORMATION

C16 Ganglioside G_{M3}-d_9 (d18:1/16:0-d_9) (ammonium salt)

Item No. 31198



Formal Name: N-[(1S,2R,3E)-1-[[[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_{M3}-d_9, N-Hexadecanoyl-d_9 (13,13,14,14,15,15,16,16,16)-Monosialoganglioside G_{M3}

MF: $C_{57}H_{94}D_9N_2O_{21} \bullet NH_4$

FW: 1,179.5

Chemical Purity: ≥95% (C16 Ganglioside G_{M3} (d18:1/16:0) (ammonium salt))

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_{M3}-d_9 (d18:1/16:0-d_9) is intended for use as an internal standard for the quantification of C16 ganglioside G_{M3} 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).

C16 Ganglioside G_{M3}-d_9 (d18:1/16:0-d_9) is supplied as a solid. A stock solution may be made by dissolving the C16 ganglioside G_{M3}-d_9 (d18:1/16:0-d_9) in the solvent of choice, which should be purged with an inert gas. C16 Ganglioside G_{M3}-d_9 (d18:1/16:0-d_9) is soluble in a 2:1:0.1 solution of chloroform:methanol:DI water.

Description

C16 Ganglioside G_{M3} (d18:1/16:0) is a monosialylated ganglioside. It has been found in human fetal frontal lobe tissue isolated in the 27th gestational week but not in human fetal anencephalic residual brain tissue isolated in the 28th gestational week.[1] C16 Ganglioside G_{M3} (d18:1/16:0) is higher in the serum of patients with visceral fat accumulation (VFA) and patients with VFA and dyslipidemia compared to healthy lean control subjects.[2] Serum levels of C16 ganglioside G_{M3} (d18:1/16:0) are inversely correlated with erythrocyte counts in patients with hematological diseases, including patients with lymphoid neoplasms.[3] *As this product is derived from a natural source, there may be variations in the sphingoid backbone.*

References

1. Almeida, R., Mosoarca, C., Chirita, M., *et al. Anal. Biochem.* **378(1)**, 43-52 (2008).
2. Veillon, L., Go, S., Matsuyama, W., *et al. PLoS One* **10(6)**, e0129645 (2015).
3. Nishikawa, M., Kurano, M., Nitta, T., *et al. Sci. Rep.* **9(1)**, 6308 (2019).

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