

# PRODUCT INFORMATION



## C16 Ganglioside G<sub>M3</sub>-d<sub>9</sub> (d18:1/16:0-d<sub>9</sub>) (ammonium salt, synthetic) Item No. 39225

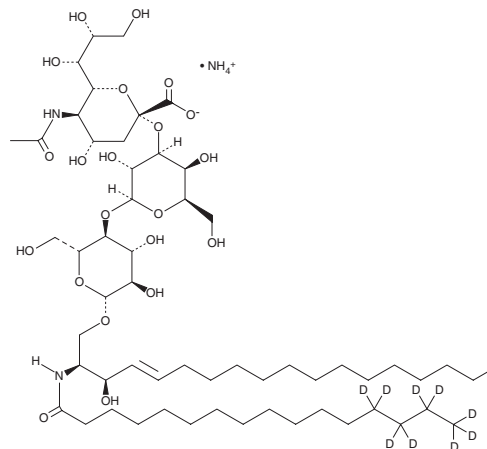
**Formal Name:** N-[(1S,2R,3E)-1-[[[O-(N-acetyl- $\alpha$ -neuraminosyl)-(2 $\rightarrow$ 3)-O- $\beta$ -D-galactopyranosyl-(1 $\rightarrow$ 4)- $\beta$ -D-glucopyranosyl]oxy]methyl]-2-hydroxy-3-heptadecen-1-yl]-hexadecanamide-13,13,14,14,15,15,16,16,16-d<sub>9</sub>, monoammonium salt

**Synonyms:** C16 G<sub>M3</sub>-d<sub>9</sub>, N-Hexadecanoyl-d<sub>9</sub> (13,13,14,14,15,15,16,16,16)-Monosialoganglioside G<sub>M3</sub>

**MF:** C<sub>57</sub>H<sub>94</sub>D<sub>9</sub>N<sub>2</sub>O<sub>21</sub> • NH<sub>4</sub><sup>+</sup>

**FW:** 1,179.5

**Chemical Purity:**  $\geq$ 95% (C16 Ganglioside G<sub>M3</sub> (d18:1/16:0) (ammonium salt))



**Deuterium Incorporation:**  $\geq$ 99% deuterated forms (d<sub>1</sub>-d<sub>9</sub>);  $\leq$ 1% d<sub>0</sub>

**Supplied as:** A film

**Storage:** -20°C

**Stability:**  $\geq$ 2 years

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

### Laboratory Procedures

C16 Ganglioside G<sub>M3</sub>-d<sub>9</sub> (d18:1/16:0-d<sub>9</sub>) is intended for use as an internal standard for the quantification of C16 ganglioside G<sub>M3</sub> 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<sub>M3</sub>-d<sub>9</sub> (d18:1/16:0-d<sub>9</sub>) is supplied as a solid. A stock solution may be made by dissolving the C16 ganglioside G<sub>M3</sub>-d<sub>9</sub> (d18:1/16:0-d<sub>9</sub>) in the solvent of choice, which should be purged with an inert gas. C16 Ganglioside G<sub>M3</sub>-d<sub>9</sub> (d18:1/16:0-d<sub>9</sub>) is soluble in a 2:1:0.1 solution of chloroform:methanol:DI water.

### Description

C16 Ganglioside G<sub>M3</sub>-d<sub>9</sub> (d18:1/16:0-d<sub>9</sub>) is intended for use as an internal standard for the quantification of C16 ganglioside G<sub>M3</sub> by GC- or LC-MS. C16 Ganglioside G<sub>M3</sub> (d18:1/16:0) is a monosialylated ganglioside. It has been found in human fetal frontal lobe tissue isolated in the 27<sup>th</sup> gestational week but not in human fetal anencephalic residual brain tissue isolated in the 28<sup>th</sup> gestational week.<sup>1</sup> C16 Ganglioside G<sub>M3</sub> (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.<sup>1</sup> Serum levels of C16 ganglioside G<sub>M3</sub> (d18:1/16:0) are inversely correlated with erythrocyte counts in patients with hematological diseases, including patients with lymphoid neoplasms.<sup>3</sup> *This product is fully synthetic and has no variations in the fatty acyl chain or sphingoid backbone. It is intended for use as an analytical standard for the quantification of [C16 ganglioside G<sub>M3</sub>] by mass spectrometry.*

### 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).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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