

PRODUCT INFORMATION



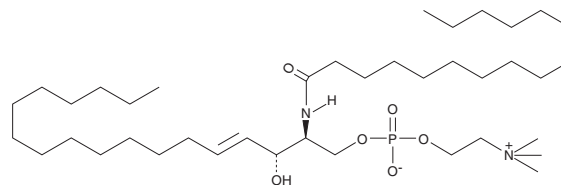
C16 Sphingomyelin (d18:1/16:0)

Item No. 10007946

CAS Registry No.: 6254-89-3
Formal Name: 4-hydroxy-7S-[(1R,2E)-1-hydroxy-2-hexadecen-1-yl]-N,N,N-trimethyl-9-oxo-3,5-dioxo-8-aza-4-phosphatetracosan-1-aminium, 4-oxide, inner salt

Synonyms: Palmitoyl Sphingomyelin, N-Palmitoyl-D-erythro-Sphingosylphosphorylcholine, SM(d18:1/16:0), Sphingomyelin (d18:1/16:0)

MF: C₃₉H₇₉N₂O₆P
FW: 703.0
Purity: ≥98%
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥1 year



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

Laboratory Procedures

C16 Sphingomyelin (d18:1/16:0) is supplied as a crystalline solid. A stock solution may be made by dissolving the C16 sphingomyelin (d18:1/16:0) in the solvent of choice, which should be purged with an inert gas. C16 Sphingomyelin (d18:1/16:0) is soluble in the organic solvent ethanol at a concentration of approximately 10 mg/ml.

Description

C16 Sphingomyelin is a naturally occurring sphingolipid.¹⁻³ Levels of C16 sphingomyelin are elevated in the prefrontal cortex and cerebellum in a rat model of diabetes induced by streptozotocin (STZ; Item No. 13104), as well as in the liver in mouse models of Niemann-Pick type C1 disease.^{1,2} Plasma levels of C16 sphingomyelin are decreased in patients with prostate cancer.³ Model membranes containing C16 sphingomyelin, 1-palmitoyl-2-oleoyl-*sn*-glycero-3-PC (POPC; Item No. 15102), and cholesterol (Item No. 9003100) have been used in the study of lipid raft dynamics and membrane organization.^{4,5}

References

1. Fiedorowicz, A., Prokopiuk, S., Zendzian-Piotrowska, M., *et al. Neuroscience* **256**, 282-291 (2014).
2. Praggastis, M., Tortelli, B., Zhang, J., *et al. J. Neurosci.* **35(21)**, 8091-8106 (2015).
3. Awwad, H.M., Ohlmann, C.H., Stoeckle, M., *et al. Biochimie* **126**, 108-114 (2016).
4. de Almeida, R.F.M., Loura, L.M.S., Fedorov, A., *et al. J. Mol. Biol.* **346(4)**, 1109-1120 (2005).
5. Halling, K.K., Ramstedt, B., Nyström, J.H., *et al. Biophys. J.* **95(8)**, 3861-3871 (2008).

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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