

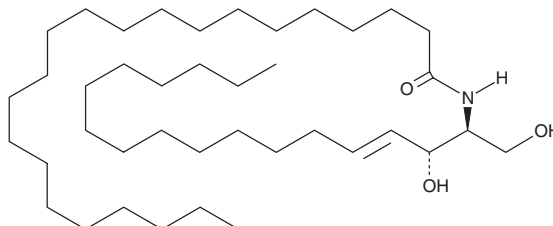
PRODUCT INFORMATION



C22 Ceramide (d18:1/22:0)

Item No. 22533

CAS Registry No.: 27888-44-4
Formal Name: N-[(1S,2R,3E)-2-hydroxy-1-(hydroxymethyl)-3-heptadecen-1-yl]-docosanamide
Synonyms: C22 Ceramide, Cer(d18:1/22:0), Ceramide (d18:1/22:0)
MF: C₄₀H₇₉NO₃
FW: 622.1
Purity: ≥95%
Supplied as: A crystalline 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

C22 Ceramide (d18:1/22:0) is supplied as a crystalline solid. A stock solution may be made by dissolving the C22 ceramide (d18:1/22:0) in the solvent of choice, which should be purged with an inert gas. C22 Ceramide (d18:1/22:0) is soluble in the organic solvent dimethyl formamide at a concentration of approximately 0.15 mg/ml.

Description

C22 Ceramide is an endogenous bioactive sphingolipid. Ceramides are involved in permeabilization of the mitochondrial outer membrane during apoptosis via the intrinsic pathway.¹ C22 Ceramide forms small channels in liposomes, whereas C16 ceramide (Item No. 10681) forms channels that can grow in size, suggesting that acyl chain length of ceramides is important in mitochondrial-mediated apoptosis. In addition, the mitochondrial-to-cytosolic stress response (MCSR) in *C. elegans* fed C22 ceramide decreases following inhibition of Hsp6 (mortalin/Grp75/mtHsp70) using RNAi.²

References

1. Stiban, J. and Perera, M. Very long chain ceramides interfere with C16-ceramide-induced channel formation: A plausible mechanism for regulating the initiation of intrinsic apoptosis. *Biochim. Biophys. Acta* **1848**(2), 561-567 (2015).
2. Kim, H.E., Grant, A.R., Simic, M.S., et al. Lipid biosynthesis coordinates a mitochondrial-to-cytosolic stress response. *Cell* **166**(6), 1539-1552 (2016).

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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