

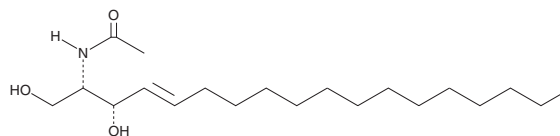
PRODUCT INFORMATION



C2 L-threo Ceramide (d18:1/2:0)

Item No. 24386

CAS Registry No.: 143615-69-4
Formal Name: N-[(1S,2S,3E)-2-hydroxy-1-(hydroxymethyl)-3-heptadecen-1-yl]-acetamide
Synonyms: L-threo Cer(d18:1/2:0), L-threo Ceramide (d18:1/2:0), N-acetyl-L-threo-Sphingosine,
MF: C₂₀H₃₉NO₃
FW: 341.5
Purity: ≥98%
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

C2 L-threo Ceramide (d18:1/2:0) is supplied as a solid. A stock solution may be made by dissolving the C2 L-threo ceramide (d18:1/2:0) in the solvent of choice which should be purged with an inert gas. C2 L-threo Ceramide (d18:1/2:0) is soluble in organic solvents such as ethanol, chloroform, DMSO, and dimethyl formamide (DMF). The solubility of C2 L-threo ceramide (d18:1/2:0) in DMF is approximately 5 mg/ml.

Description

C2 L-threo Ceramide is a bioactive sphingolipid and cell-permeable analog of naturally occurring ceramides.¹ It stimulates cholesterol efflux in CHO cells expressing the human ABCA1 receptor when used at a concentration of 10 μM, however, this efflux is 50% less than that stimulated by C2 ceramide (Item No. 62510). C2 L-threo Ceramide inhibits IL-4 production by 17% in EL4 T cells stimulated with phorbol 12-myristate 13-acetate (PMA; Item No. 10008014) when used at a concentration of 10 μM.² It also induces cell cycle arrest in the G₀/G₁ phase and a 7-fold increase in sphingosine accumulation as well as inhibits growth of HL-60 leukemia cells.^{3,4}

References

1. Ghering, A.B. and Davidson, W.S. Ceramide structural features required to stimulate ABCA1-mediated cholesterol efflux to apolipoprotein A-I. *J. Lipid Res.* **47(12)**, 2781-2788 (2006).
2. Park, J., Li, Q., Chang, Y.T., et al. Inhibitory activity of a ceramide library in interleukin-4 production from activated T cells. *Bioorg. Med. Chem.* **13(7)**, 2589-2595 (2005).
3. Baek, M.Y., Yoo, H.S., Nakaya, K., et al. Sphingolipid metabolic changes during chiral C2-ceramides induced apoptosis in human leukemia cells. *Arch. Pharm. Res.* **24(2)**, 144-149 (2001).
4. Bielawska, A., Crane, H.M., Liotta, D., et al. Selectivity of ceramide-mediated biology. Lack of activity of erythro-dihydroceramide. *J. Biol. Chem.* **268(35)**, 26226-26232 (1993).

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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