

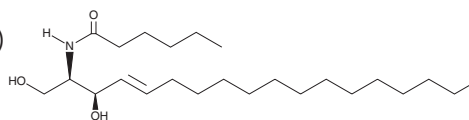
PRODUCT INFORMATION



C6 D-threo Ceramide (d18:1/6:0)

Item No. 24389

CAS Registry No.: 189894-79-9
Formal Name: N-[(1R,2R,3E)-2-hydroxy-1-(hydroxymethyl)-3-heptadecen-1-yl]-hexanamide
Synonyms: N-hexanoyl-D-threo-Sphingosine, D-threo Cer(d18:1/6:0), D-threo Ceramide (d18:1/6:0)
MF: C₂₄H₄₇NO₃
FW: 397.6
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

C6 D-threo Ceramide (d18:1/6:0) is supplied as a solid. A stock solution may be made by dissolving the C6 D-threo ceramide (d18:1/6:0) in the solvent of choice, which should be purged with an inert gas. C6 D-threo Ceramide (d18:1/6:0) is soluble in a chloroform:methanol:DMSO (warm) solution of up to 5 mg/ml.

Description

C6 D-threo Ceramide is a bioactive sphingolipid and cell-permeable analog of naturally occurring ceramides.^{1,2} C6 D-threo Ceramide is cytotoxic to U937 cells *in vitro* (IC₅₀ = 18 μM).³ It is metabolically inactive and, unlike C6 L-erythro ceramide (Item No. 24388), C6 D-threo ceramide cannot be converted to C6 glucosylceramide by ceramide glucosyltransferase.⁴ C6 D-threo Ceramide promotes survival of isolated rat spinal neurons when used at concentrations up to 2.5 μM but induces cell death at concentrations greater than 5 μM. It enhances IL-4 production induced by phorbol 12-myristate 13-acetate (PMA; Item No. 10008014) in EL4 T cells when used at a concentration of 10 μM.⁵

References

- Schwarz, A. and Futerman, A.H. Distinct roles for ceramide and glucosylceramide at different stages of neuronal growth. *J. Neurosci.* **17(9)**, 2929-2938 (1997).
- Paul, P., Kamisaka, Y., Marks, D.L., *et al.* Purification and characterization of UDP-glucose: Ceramide glucosyltransferase from rat liver Golgi membranes. *J. Biol. Chem.* **271(4)**, 2287-2293 (1996).
- Chang, Y.-T., Choi, J., Ding, S., *et al.* The synthesis and biological characterization of a ceramide library. *J. Am. Chem. Soc.* **124(9)**, 1856-1857 (2002).
- Irie, F. and Hirabayashi, Y. Application of exogenous ceramide to cultured rat spinal motoneurons promotes survival or death by regulation of apoptosis depending on its concentrations. *J. Neurosci. Res.* **54(4)**, 475-485 (1998).
- 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).

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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