

PRODUCT INFORMATION



C2 Ceramide (d18:1/2:0)

Item No. 62510

CAS Registry No.: 3102-57-6
Formal Name: N-[(1S,2R,3E)-2-hydroxy-1-(hydroxymethyl)-3-heptadecen-1-yl]-acetamide

Synonyms: C2 Ceramide, Ceramide (d18:1/2:0), Cer(18:1/2:0), N-acetyl-D-erythro-sphingosine

MF: C₂₀H₃₉NO₃

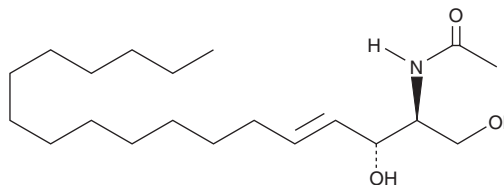
FW: 341.5

Purity: ≥98%

Supplied as: A crystalline solid

Storage: -20°C

Stability: As supplied, 1 year from the QC date provided on the Certificate of Analysis, when stored properly



Laboratory Procedures

Concentrated stock solutions of C2 ceramide (d18:1/2:0) can be prepared by dissolving the crystalline solid in an organic solvent such as ethanol, methanol, chloroform, or DMSO. The solubility of C2 ceramide (d18:1/2:0) in these solvents is approximately 10 mg/ml. Stock solutions will be stable for six months stored at -20°C. Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Also, ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. We do not recommend storing the aqueous solution for more than one day.

Description

C2 ceramide is a biologically active, cell permeable, and less hydrophobic analog of natural ceramides. It has been shown to induce cell differentiation and inhibit cell growth in HL-60 cells.^{2,3} C2 ceramide activates a cytosolic protein phosphatase in T9 cells at levels as low as 0.1 μM.⁴

References

1. Obeid, L.M., Linardic, C.M., Karolak, L.A., *et al.* Programmed cell death induced by ceramide. *Science* **259**, 1769-1771 (1993).
2. Okazaki, T., Bielawska, A., Bell, R.M., *et al.* Role of ceramide as a lipid mediator of 1α,25-dihydroxyvitamin D₃-induced HL-60 cell differentiation. *J. Biol. Chem.* **265**, 15823-15831 (1990).
3. Bielawska, A., Linardic, C.M., and Hannun, Y.A. Ceramide-mediated biology. Determination of structural and stereospecific requirements through the use of N-acyl-phenylaminoalcohol analogs. *J. Biol. Chem.* **267**, 18493-18497 (1992).
4. Dobrowsky, R.T. and Hannun, Y.A. Ceramide stimulates a cytosolic protein phosphatase. *J. Biol. Chem.* **267**, 5048-5051 (1992).

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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