

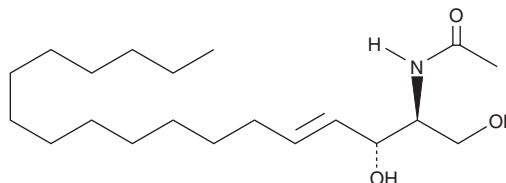
Product Information



C-2 Ceramide

Item No. 62510

CAS Registry No.: 3102-57-6
Formal Name: N-[(1S,2R,3E)-2-hydroxy-1-(hydroxymethyl)-3-heptadecen-1-yl]-acetamide
Synonym: N-acetyl sphingosine
MF: C₂₀H₃₉NO₃
FW: 341.5
Purity: ≥98%
Stability: ≥1 year at -20°C
Supplied as: A crystalline solid
Melting Point: 86-87°C



Laboratory Procedures

For long term storage, we suggest that C-2 ceramide be stored as supplied at -20°C. It should be stable for at least one year.

Concentrated stock solutions of C-2 ceramide can be prepared by dissolving the crystalline solid in an organic solvent such as ethanol, methanol, chloroform, or DMSO. The solubility of C-2 ceramide 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.

C-2 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} C-2 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).

Related Products

C-16 Ceramide - Item No. 10681 • C-20 Ceramide - Item No. 10724 • AV-Ceramide - Item No. 9000753

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WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY; NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

MATERIAL SAFETY DATA

This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Material Safety Data Sheet, which has been sent via email to your institution.

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