

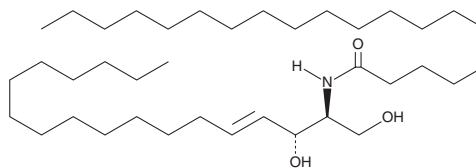
PRODUCT INFORMATION



C20 Ceramide (d18:1/20:0)

Item No. 10724

CAS Registry No.: 7344-02-7
Formal Name: N-[2R-hydroxy-1S-(hydroxymethyl)-3E-heptadecen-1-yl]-eicosanamide
Synonyms: Cer(d18:1/20:0), Ceramide (d18:1/20:0), N-arachidoyl-D-erythro-Sphingosine
MF: C₃₈H₇₅NO₃
FW: 594.0
Purity: ≥98%
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥2 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

C20 Ceramide (d18:1/20:0) is supplied as a crystalline solid. A stock solution may be made by dissolving the C20 ceramide (d18:1/20:0) in the solvent of choice. C20 Ceramide (d18:1/20:0) is soluble in dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of C20 ceramide (d18:1/20:0) in DMF is approximately 0.15 mg/ml.

If aqueous stock solutions are required for biological experiments, they can best be prepared by diluting the organic solvent into aqueous buffers or isotonic saline. 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

Ceramides are generated from sphingomyelin through activation of sphingomyelinases or through the *de novo* synthesis pathway. Certain forms of ceramide have been shown to mediate cellular responses such as apoptosis, growth arrest, and differentiation in certain cell types.^{1,2} C20 Ceramide is a natural 20:0 ceramide that is abundant in the brain. It is synthesized *de novo* by ceramide synthases 1 and 2.^{3,4}

References

1. Ogretmen, B., Pettus, B.J., Rossi, M.J., *et al.* Biochemical mechanisms of the generation of endogenous long chain ceramide in response to exogenous short chain ceramide in the A547 human lung adenocarcinoma cell line. *J. Biol. Chem.* **277**(15), 12960-9 (2002).
2. Pandey, S., Murphy, R.F., and Agrawal, D.K. Recent advances in the immunobiology of ceramide. *Exp. Mol. Pathol.* **82**(3), 298-309 (2007).
3. Cowart, L.A. Sphingolipids: Players in the pathology of metabolic disease. *Trends Endocrinol. Metab.* **20**(1), 34-42 (2008).
4. Pewzner-Jung, Y., Ben-Dor, S., and Futerman, A.H. When do lasses (longevity assurance genes) become CerS (ceramide synthases)? *J. Biol. Chem.* **281**(35), 25001-5 (2006).

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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