

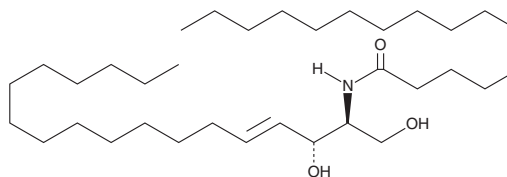
PRODUCT INFORMATION



C16 Ceramide (d18:1/16:0)

Item No. 10681

CAS Registry No.: 24696-26-2
Formal Name: N-[(1S,2R,3E)-2-hydroxy-1-(hydroxymethyl)-3-heptadecen-1-yl]-hexadecanamide
Synonyms: Cer(d18:1/16:0), Ceramide (d18:1/16:0), Palmitoyl Ceramide, N-Palmitoyl-D-erythro-Sphingosine
MF: C₃₄H₆₇NO₃
FW: 537.9
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

C16 Ceramide (d18:1/16:0) is supplied as a crystalline solid. A stock solution may be made by dissolving the C16 ceramide (d18:1/16:0) in the solvent of choice. C16 Ceramide (d18:1/16:0) is soluble in the organic solvent dimethyl formamide, which should be purged with an inert gas, at a concentration of approximately 0.5 mg/ml.

Description

Ceramides are generated from sphingomyelin through activation of sphingomyelinases or through the *de novo* synthesis pathway, which requires coordinate action of serine palmitoyl transferase and ceramide synthase. They have been shown to mediate antiproliferative responses such as apoptosis, growth arrest, differentiation, and senescence.¹ C16 Ceramide (d18:1/16:0) is an endogenous ceramide, generated by ceramide synthase 6 (CerS6), that acts as a lipid second messenger to regulate apoptosis and stress signaling.² Accumulation of C16 ceramide (d18:1/16:0) through PPMP (30 μM) or MAPP (50 μM) treatment or from addition of 100 μM synthetic C16 ceramide (d18:1/16:0) induces apoptosis in neutrophil cultures *via* caspase-3 activation.³

References

- 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), 12960-12969 (2002).
- White-Gilbertson, S., Mullen, T., Senkal, C., *et al.* Ceramide synthase 6 modulates TRAIL sensitivity and nuclear translocation of active caspase 3 in colon cancer cells. *Oncogene* **28**(8), 1132-1141 (2009).
- Seumois, G., Fillet, M., Gillet, L., *et al.* *De novo* C16- and C24-ceramide generation contributes to spontaneous neutrophil apoptosis. *J. Leukoc. Biol.* **81**, 1477-1486 (2007).

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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