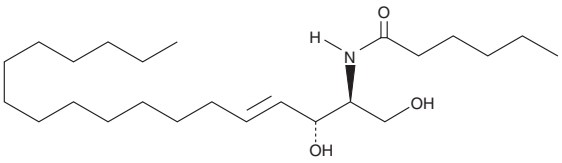
PRODUCT INFORMATION

C6 Ceramide (d18:1/6:0)

Item No. 62525

CAS Registry No.: 124753-97-5
Formal Name: N-[(1S,2R,3E)-2-hydroxy-1-(hydroxymethyl)-3-heptadecen-1-yl]-hexanamide
Synonyms: N-Caproyl-C18-sphingosine, Cer(18:1/6:0), Ceramide (d18:1/6:0), C6 Ceramide, N-hexanoyl-D-*erythro*-sphingosine
MF: $C_{24}H_{47}NO_3$
FW: 397.6
Purity: ≥98%
Supplied as: A crystalline 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 ceramide (d18:1/6:0) is supplied as a crystalline solid. A stock solution may be made by dissolving the C6 ceramide (d18:1/6:0) in an organic solvent purged with an inert gas. C6 ceramide (d18:1/6:0) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of C6 ceramide (d18:1/6:0) in these solvents is approximately 20 mg/ml.

C6 ceramide (d18:1/6:0) is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, C6 ceramide (d18:1/6:0) should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. C6 ceramide (d18:1/6:0) has a solubility of approximately 0.5 mg/ml in a 1:1 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

C6 ceramide is a cell-permeable analog of naturally occurring ceramides. With a longer carbon chain than C2 ceramide, it is somewhat more hydrophobic, and may more closely mimic the effects of natural ceramides.[1] C6 ceramide mediates many diverse biological activities including apoptosis,[2] activation of protein phosphatase 2A,[3,4] and inhibition of the mitochondrial respiratory chain.[5] It also enhances the expression of COX-2 in rat granulosa cells[4] and stimulates the growth of bovine aortic smooth muscle cells.[6] C6 ceramide acts in neuronal axons to inhibit neurite growth.[7]

References

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CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.**CAYMANCHEM**.COM