

PRODUCT INFORMATION



C6 Biotin Ceramide (d18:1/6:0)

Item No. 9000415

CAS Registry No.: 192070-02-3
Formal Name: (3aS,4S,6aR)-hexahydro-N-[6-[[[(1S,2R,3E)-2-hydroxy-1-(hydroxymethyl)-3-heptadecen-1-yl]amino]-6-oxohexyl]-2-oxo-1H-thieno[3,4-d]imidazole-4-pentanamide

Synonyms: Biotin Ceramide (d18:1/6:0), Biotin Cer(d18:1/6:0), C6 Ceramide-biotin, N-C6:0-biotin-D-erythro-Ceramide, N-hexanoyl-biotin-D-erythro-Sphingosine

MF: C₃₄H₆₂N₄O₅S

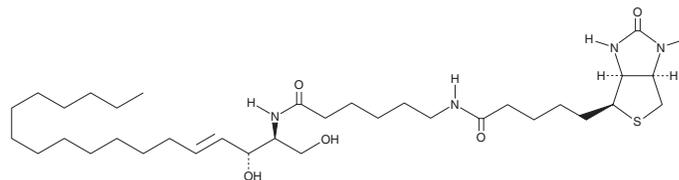
FW: 638.9

Purity: ≥98%

Supplied as: A 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 Biotin ceramide (d18:1/6:0) is supplied as a solid. A stock solution may be made by dissolving the C6 biotin ceramide (d18:1/6:0) in the solvent of choice, which should be purged with an inert gas. C6 Biotin ceramide (d18:1/6:0) is soluble in dimethyl formamide.

Description

C6 Ceramide-biotin is an affinity probe that allows C6 ceramide (Item No. 62525) to be detected or immobilized through interaction with the biotin ligand. C6 Ceramide-biotin has been used to detect ceramide binding partners, such as inhibitor 2 of protein phosphatase 2A (I2PP2A), *in vitro* and *in situ*.¹ C6 ceramide is a cell-permeable analog of naturally occurring ceramides. With a longer carbon chain than C2 Ceramide (d18:1/2:0) (Item No. 62510), it is somewhat more hydrophobic and may more closely mimic the effects of natural ceramides.² C6 ceramide mediates many diverse biological activities including apoptosis, activation of PP2A, and inhibition of the mitochondrial respiratory chain.²⁻⁵ It also enhances the expression of COX-2 in rat granulosa cells and stimulates the growth of bovine aortic smooth muscle cells.^{6,7} C6 ceramide acts in neuronal axons to inhibit neurite growth.⁸

References

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3. Cai, Z., Bettaieb, A., El Mahdani, N., *et al.* *J. Biol. Chem.* **272(11)**, 6918-6926 (1997).
4. Dobrowsky, R.T., Kamibayashi, C., Mumby, M.C., *et al.* *J. Biol. Chem.* **268(21)**, 15523-15530 (1993).
5. Gudz, T.I., Tserng, K.-Y., and Hoppel, C.L. *J. Biol. Chem.* **272(39)**, 24154-24158 (1997).
6. Santana, P., Llanes, L., Hernandez, I., *et al.* *Endocrinology* **137(6)**, 2480-2489 (1996).
7. Augé, N., Andrieu, N., Nègre-Salvayre, A., *et al.* *J. Biol. Chem.* **271(32)**, 19251-19255 (1996).
8. Posse de Chaves, E.I., Bussière, M., Vance, D.E., *et al.* *J. Biol. Chem.* **272(4)**, 2038-3035 (1997).

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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