

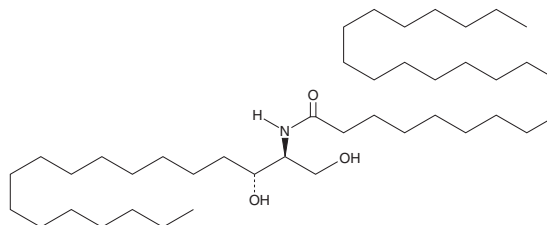
PRODUCT INFORMATION



C24 dihydro Ceramide (d18:0/24:0)

Item No. 25602

CAS Registry No.: 6063-36-1
Formal Name: N-[(1S,2R)-2-hydroxy-1-(hydroxymethyl)heptadecyl]-tetracosanamide
Synonyms: Cer(d18:0/24:0), N-Lignoceroyl-D-erythro-Sphinganine, N-Tetracosanoylsphinganine
MF: C₄₂H₈₅NO₃
FW: 652.1
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

C24 dihydro Ceramide (d18:0/24:0) is supplied as a solid. A stock solution may be made by dissolving the C24 dihydro ceramide (d18:0/24:0) in the solvent of choice. C24 dihydro Ceramide (d18:0/24:0) is soluble in the organic solvent dimethyl formamide (DMF), which should be purged with an inert gas at a concentration of approximately 0.15 mg/ml.

Description

C24 dihydro Ceramide is a sphingolipid that has been found in the stratum corneum of human skin.¹ It is found in higher concentrations in female sebum compared to male sebum.² C24 dihydro Ceramide levels positively correlate with cytotoxicity in CCRF-CEM, MOLT-4, COG-LL-317h, and COG-LL-332h T cell acute lymphoblastic leukemia (ALL) cell lines.³ Levels of C24 dihydro ceramide are increased by 149.49-fold in dihydroceramide desaturase 1 (DEGS1) knockdown UM-SCC-22A human head and neck squamous carcinoma cells *in vitro*.⁴ C24 dihydro Ceramide levels are also increased in INS-1 β-cells incubated with glucose and palmitate (Item No. 10010279).⁵

References

1. Farwanah, H., Wohlrab, J., Neubert, R.H., *et al.* Profiling of human stratum corneum ceramides by means of normal phase LC/APCI-MS. *Anal. Bioanal. Chem.* **383**(4), 632-637 (2005).
2. Agrawal, K., Hassoun, L.A., Foolad, N., *et al.* Effects of atopic dermatitis and gender on sebum lipid mediator and fatty acid profiles. *Prostaglandins Leukot. Essent. Fatty Acids* **134**, 7-16 (2018).
3. Holliday, M.W., Jr., Cox, S.B., Kang, M.H., *et al.* C22:0- and C24:0-dihydroceramides confer mixed cytotoxicity in T-cell acute lymphoblastic leukemia cell lines. *PLoS One* **8**(9), e74768 (2013).
4. Breen, P., Josphe, N., Thompson, K., *et al.* Dihydroceramide desaturase knockdown impacts sphingolipids and apoptosis after photodamage in human head and neck squamous carcinoma cells. *Anticancer Res.* **33**(1), 77-84 (2013).
5. Véret, J., Coant, N., Berdyshev, E.V., *et al.* Ceramide synthase 4 and de novo production of ceramides with specific N-acyl chain lengths are involved in gluco-lipotoxicity-induced apoptosis of INS-1 β-cells. *Biochem J.* **438**(1), 177-189 (2011).

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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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