

PRODUCT INFORMATION



C24:1 dihydro 1-Deoxyceramide (m18:0/24:1)

Item No. 27562

CAS Registry No.: 1246298-60-1
Formal Name: N-[(1S,2R)-2-hydroxy-1-methylheptadecyl]-15Z-tetracosenamide
Synonyms: C24:1deoxyDHCer, C24:1 deoxyDHCeramide, C24:1 deoxy Dihydroceramide, C24:1 dihydro Ceramide (m18:0/24:1), Cer(m18:0/24:1), N-tetracosenoyl-1-deoxy-Sphinganine

MF: C₄₂H₈₃NO₂

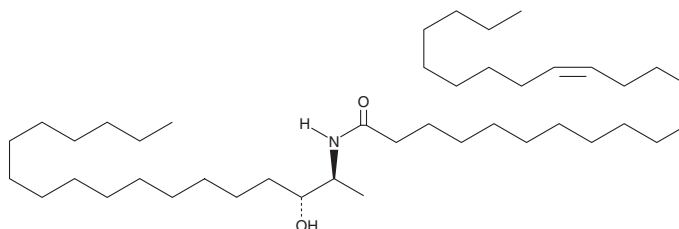
FW: 634.1

Purity: ≥95%

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

C24:1 dihydro 1-Deoxyceramide (m18:0/24:1) is supplied as a crystalline solid. A stock solution may be made by dissolving the C24:1 dihydro 1-deoxyceramide (m18:0/24:1) in the solvent of choice, which should be purged with an inert gas. C24:1 dihydro 1-Deoxyceramide (m18:0/24:1) is soluble in the organic solvent dimethyl formamide at a concentration of approximately 0.5 mg/ml.

Description

C24:1 dihydro 1-Deoxyceramide (m18:0/24:1) is a very long-chain atypical ceramide containing a 1-deoxysphinganine (m18:0) (Item No. 13511) backbone. 1-Deoxysphingolipids are formed when serine palmitoyltransferase condenses palmitoyl-CoA with alanine instead of serine during sphingolipid synthesis.^{1,2} C24:1 dihydro 1-Deoxyceramide (m18:0/24:1) has been found as a major 1-deoxyceramide species in mouse embryonic fibroblasts (MEFs) following application of 1-deoxysphinganine alkyne or 1-deoxysphinganine-d₃.³

References

1. Steiner, R., Saied, E.M., Othman, A., et al. Elucidating the chemical structure of native 1-deoxysphingosine. *J. Lipid Res.* **57(7)**, 1194-1203 (2016).
2. Alecu, I., Othman, A., Penno, A., et al. Cytotoxic 1-deoxysphingolipids are metabolized by a cytochrome P450-dependent pathway. *J. Lipid Res.* **58(1)**, 60-71 (2017).
3. Alecu, I., Tedeschi, A., Behler, N., et al. Localization of 1-deoxysphingolipids to mitochondria induces mitochondrial dysfunction. *J. Lipid. Res.* **58(1)**, 42-59 (2017).

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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