

PRODUCT INFORMATION



C22 1-Deoxyceramide (m18:1(14Z)/22:0)

Item No. 27561

Formal Name: N-((2S,3R,Z)-3-hydroxyoctadec-14-en-2-yl) docosanamide

Synonyms: C22 Ceramide (m18:1/22:0), Cer(m18:1/22:0), N-docosanoyl-1-deoxy-4,5-dihydro-14Z-Sphingosine

MF: C₄₀H₇₉NO₂

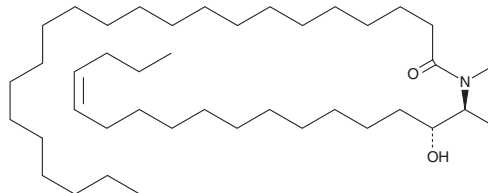
FW: 606.1

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

C22 1-Deoxyceramide (m18:1(14Z)/22:0) is supplied as a crystalline solid. A stock solution may be made by dissolving the C22 1-deoxyceramide (m18:1(14Z)/22:0) in the solvent of choice, which should be purged with an inert gas. C22 1-Deoxyceramide (m18:1(14Z)/22:0) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of C22 1-deoxyceramide (m18:1(14Z)/22:0) in ethanol is approximately 30 mg/ml and approximately 20 mg/ml in DMSO and DMF.

C22 1-Deoxyceramide (m18:1(14Z)/22:0) is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, C22 1-deoxyceramide (m18:1(14Z)/22:0) should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. C22 1-Deoxyceramide (m18:1(14Z)/22:0) 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

C22 1-deoxyceramide (m18:1(14Z)/22:0) is a long-chain atypical ceramide containing a 1-deoxysphingosine (m18:1(14Z)) (Item No. 24515) backbone with a *cis* double bond at the 14-15 position rather than a *trans* double bond at the 4-5 position. 1-Deoxysphingolipids are formed when serine palmitoyltransferase condenses palmitoyl-CoA with alanine instead of serine during sphingolipid synthesis.^{1,2}

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).

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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