

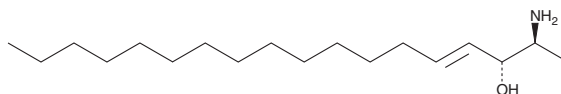
PRODUCT INFORMATION



1-Deoxysphingosine (m18:1(4E))

Item No. 24687

CAS Registry No.: 193222-34-3
Formal Name: 2S-amino-4E-octadecen-3R-ol
Synonyms: 1-deoxySO,
4E-1-Deoxysphingosine (m18:1)
MF: $C_{18}H_{37}NO$
FW: 283.5
Purity: $\geq 98\%$
Supplied as: A crystalline solid
Storage: $-20^{\circ}C$
Stability: ≥ 4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

1-Deoxysphingosine (m18:1(4E)) is supplied as a crystalline solid. A stock solution may be made by dissolving the 1-deoxysphingosine (m18:1(4E)) in the solvent of choice, which should be purged with an inert gas. 1-Deoxysphingosine (m18:1(4E)) is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of 1-deoxysphingosine (m18:1(4E)) in these solvents is approximately 2 and 10 mg/ml, respectively. 1-Deoxysphingosine (m18:1(4E)) is also miscible in ethanol.

Description

1-Deoxysphingosine (m18:1(4E)) is an atypical sphingolipid that contains a double bond at the 4E native position and is formed when serine palmitoyltransferase condenses palmitoyl-CoA with alanine instead of serine during sphingolipid synthesis.^{1,2} Plasma levels of 1-deoxysphingosine (m18:1(4E)) are increased in patients with chronic idiopathic axonal neuropathy (CIAP) and diabetic distal symmetrical polyneuropathy (DSPN).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. Hube, L., Dohrn, M.F., Karsai, G., *et al.* Metabolic syndrome, neurotoxic 1-deoxysphingolipids and nervous tissue inflammation in chronic idiopathic axonal polyneuropathy (CIAP). *PLoS One* **12**(1), e0170583 (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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