

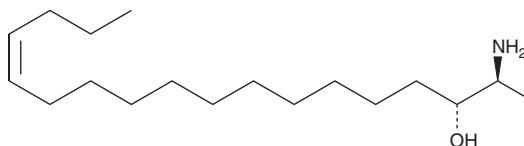
# PRODUCT INFORMATION



## 1-Deoxysphingosine (m18:1(14Z))

Item No. 24515

**CAS Registry No.:** 2190487-94-4  
**Formal Name:** (2S,3R,14Z)-2-amino-14-octadecen-3-ol  
**Synonyms:** 1-deoxySO, 14Z-1-Deoxysphingosine (d18:1)  
**MF:** C<sub>18</sub>H<sub>37</sub>NO  
**FW:** 283.5  
**Purity:** ≥95%  
**Supplied as:** A solution in ethanol  
**Storage:** -20°C  
**Stability:** ≥2 years



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

### Laboratory Procedures

1-Deoxysphingosine (m18:1(14Z)) is supplied as a solution in ethanol. To change the solvent, simply evaporate the ethanol under a gentle stream of nitrogen and immediately add the solvent of choice. Solvents such as DMSO and dimethyl formamide purged with an inert gas can be used. The solubility of 1-deoxysphingosine (m18:1(14Z)) in these solvents is approximately 2 and 10 mg/ml, respectively.

### Description

1-Deoxysphingosine (m18:1(14Z)) is an atypical sphingolipid that contains a double bond at the n-4 (14Z) native position and is formed when serine palmitoyltransferase condenses palmitoyl-CoA with alanine instead of serine during sphingolipid synthesis.<sup>1,2</sup> It lacks the C1-hydroxyl group necessary for canonical degradation, however, it is metabolized by the cytochrome P450 (CYP) subfamilies CYP4A and CYP4F in MEF cells.<sup>2</sup>

### 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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