

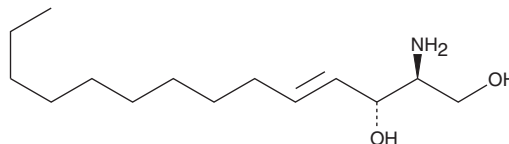
PRODUCT INFORMATION



Sphingosine (d14:1)

Item No. 24373

CAS Registry No.: 24558-60-9
Formal Name: 2S-amino-4E-tetradecene-1,3R-diol
Synonym: D-erythro-Sphingosine C14
MF: $C_{14}H_{29}NO_2$
FW: 243.4
Purity: $\geq 98\%$
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

Sphingosine (d14:1) is supplied as a solid. A stock solution may be made by dissolving the sphingosine (d14:1) in the solvent of choice. Sphingosine (d14:1) is soluble in organic solvents such as chloroform, methanol, ethanol, and DMSO, which should be purged with an inert gas.

Description

Sphingosine (d14:1) is a bioactive sphingolipid that has been found in *B. mori* (silkworm), *P. clarkii* (crayfish), and *A. aurita* (jellyfish) extracts.¹⁻³ It increases the germination rate of *N. rileyi*, an entomopathogenic fungus, with an EC_{50} value of 0.0102 ng/ml.¹ Sphingosine (d14:1) inhibits protein kinase C (PKC) *in vitro* (IC_{50} = 7.3 mol%) as well as superoxide generation induced by phorbol 12-myristate 13-acetate (PMA; Item No. 10008014) in neutrophils and reduces growth of CHO cells (IC_{50} s = 19 and 8 μM , respectively).⁴

References

1. Noda, T., Ono, M., Imure, K., *et al.* Characterization of a germination-accelerating factor from the silkworm (*Bombyx mori* Linnaeus) of entomopathogenic fungus *Nomuraea rileyi* (Farlow) Samson. *Biosci. Biotech. Biochem.* **74**(6), 1226-1230 (2010).
2. Moscatelli, E.A. and Gilliland, K.M. Sphingosine, a novel sphingosine base from *Procambarus clarkii*. *Lipids* **4**(3), 244-245 (1969).
3. Kariotoglou, D.M. and Mastronicolis, S.K. Sphingophosphonolipids, phospholipids, and fatty acids from Aegean jellyfish *Aurelia aurita*. *Lipids* **36**(11), 1255-1264 (2001).
4. Merrill, A.H., Jr., Nimkar, S., Menaldino, D., *et al.* Structural requirements for long-chain (shingoid) base inhibition of protein kinase C *in vitro* and for the cellular effects of these compounds. *Biochemistry* **28**(8), 3138-3145 (1989).

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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