

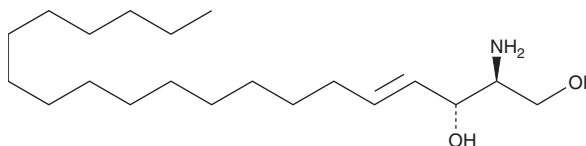
PRODUCT INFORMATION



Sphingosine (d20:1)

Item No. 10007903

CAS Registry No.: 6918-49-6
Formal Name: 2S-amino-4E-eicosene-1,3R-diol
Synonym: D-erythro-Sphingosine C20
MF: $C_{20}H_{41}NO_2$
FW: 327.6
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

Sphingosine is supplied as a crystalline solid. A stock solution may be made by dissolving the sphingosine in the solvent of choice, which should be purged with an inert gas. Sphingosine is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of sphingosine is miscible in ethanol, whereas the solubility is approximately 2 and 10 mg/ml in DMSO and DMF, respectively.

Description

Sphingosines are long-chain base precursors of cellular sphingolipids used directly in the synthesis of ceramide, which in combination with sialic acid forms ganglioside. Sphingosine can exist in four stereoisomers, however only sphingosine occurs naturally. Compared to other sphingolipids throughout the body, which are predominantly composed of C-18 sphingosine, only central nervous system (CNS) gangliosides contain significant amounts of sphingosine.^{1,2} The concentration of sphingosine within mammalian brain gangliosides apparently increases with developmental maturation.^{1,2} Furthermore, the ratio of C-18 to C-20 sphingosine in the brain is thought to be related to some nervous system degeneration processes.^{1,2}

References

1. Valsecchi, M., Chigorno, V., Nicolini, M., *et al.* Changes of free long-chain bases in neuronal cells during differentiation and aging in culture. *Journal of Neurochemistry* **67(5)**, 1866-1871 (1996).
2. Sonnino, S. and Chigorno, V. Ganglioside molecular species containing C18- and C20-sphingosine in mammalian nervous tissues and neuronal cell cultures. *Biochimica et Biophysica Acta* **1469(2)**, 63-77 (2000).

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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