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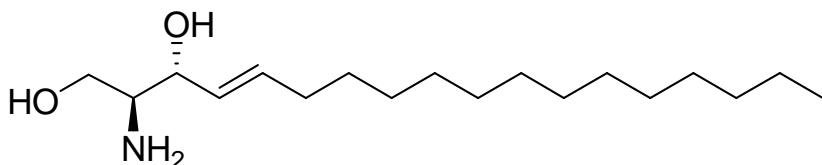
Technical Data Sheet

For research use only

Not intended or approved for
diagnostic or therapeutic use.

Product Name: D-*erythro*-Sphingosine

Product Number: S-1000



Formula: C₁₈H₃₇NO₂,

MW: 299.5,

CAS number: 123-78-4

Solubility: 9:1 CHCl₃:MeOH, 10 mg/mL

Specifications and Storage Recommendations: Sphingosine is relatively stable at room temperature as a solid. It is best stored as a dried solid, protected from light at -20°C. Solutions/emulsions of sphingosine should be kept at -20°C. Storage in basic buffers (pH > 9.0) or acidic buffers (pH < 4.0) may cause decomposition.

Field of Interest: Sphingosine is formed through ceramidase catalyzed hydrolysis of ceramide. It is a potent inhibitor of protein kinase C (IC₅₀ = 1-3 μM). Sphingosine is phosphorylated by sphingosine kinase to the bioactive lipid sphingosine 1-phosphate.

References: 1) A.H. Merrill *et al.*, "Structural requirements for long-chain (sphingoid) base inhibition of protein kinase C in vitro and for the cellular effects of these compounds" *Biochemistry*, **1989**, 28, 3138-3145. 2) Y. Hannum and L.M Obeid "Principles of bioactive lipid signaling: lessons from sphingolipids" *Nat. Rev. Mol. Cell Biol.*, **2008**, 9, 139-150. 3) A.H. Merrill "De novo sphingolipid biosynthesis: a necessary, but dangerous, pathway" *J. Biol Chem.* **2002**, 277, 25843-25846.

Hazardous Properties and Cautions: No hazardous or toxic properties are known for this substance. Sphingosine is not listed as a hazardous waste or as a toxic chemical subject to release reporting under the Emergency Planning and Community Right-to-Know Act. Sphingosine is not listed in the Chemical Inventory of the Toxic Substance Control Act, and is manufactured and shipped only in small quantities, intended for research and development in a laboratory utilizing prudent procedures for handling chemicals of unknown toxicity, under the supervision of persons technically qualified to evaluate potential risks and authorized to enforce appropriate health and safety measures. As with all research chemicals, precautions should be taken to avoid unnecessary exposures or risks.

Warranty and Disclaimer: Echelon warrants the product conforms to the specifications stated herein. In the event of nonconformity, Echelon will replace products or replace purchase price, at its sole option, and Echelon shall not be responsible for any other loss or damage, whether known or foreseeable to Echelon. No other warranties apply, express or implied, including but not limited to warranty of fitness for any purposes or implied warranty of merchantability. Purchaser is solely responsible for all consequences of the use of the product and Echelon assumes no responsibility therefore, including success of purchaser's research and development, or health or safety of any uses of the product.