

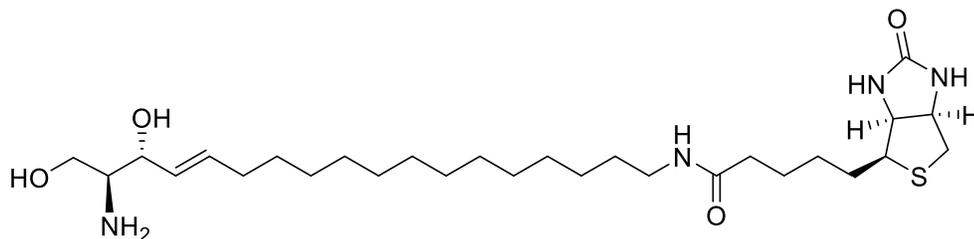
Sphingosine-biotin

Catalog number: S-100B

Molecular Formula: $C_{28}H_{52}N_4O_4S$

MW: 540.80

CAS: 752987-57-8



Solubility: MeOH, >1 mg/ml

Storage and Handling: Sphingosine-biotin is relatively stable at room temperature as a solid. It is best stored as a lyophilized solid at -20°C . Solutions/emulsions of sphingosines should be kept at -20°C . Storage in basic buffers (pH > 9.0) or acidic buffers (pH < 4.0) may cause decomposition.

Background: Sphingosine is formed through ceramidase catalyzed hydrolysis of ceramide. It is a potent inhibitor of protein kinase C ($IC_{50} = 1-3 \mu\text{M}$). Sphingosine is phosphorylated by sphingosine kinase to the bioactive lipid sphingosine 1-phosphate. This sphingosine analog is labeled with biotin at the ω -position and can be bound to streptavidin coated surfaces such as beads, microtiter plates, etc.

References: 1) C.R. Gault, *et al.* (2010) "An overview of sphingolipid metabolism: from synthesis to breakdown" *Adv. Exp. Med. Biol.* 688: 1-23.

2) Y. A. Hannum & L.M. Obeid (2017) "Sphingolipids and their metabolism in physiology and disease" *Nat. Rev. Mol. Cell Biol.* 19:175-191.

3) M. Rekhter & S. Karathanasis (2006) "Sphingolipids in atherosclerosis: a metabolic underpinning of vascular disease" *Future Lipidology* 1(5): 204-614.

4) M.A. Kashem, *et al.* (2014) "A high-throughput scintillation proximity assay for sphingosine-1-phosphate lyase" *Assay Drug Dev. Technol.* 12(5): 293-302.

Hazardous Properties and Cautions: The toxicological and pharmacological properties of this compound are not fully known. For further information see the MSDS on request. This product 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 refund 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 purpose or implied warranty of merchantability. Purchaser is solely responsible for all consequences of its 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.

