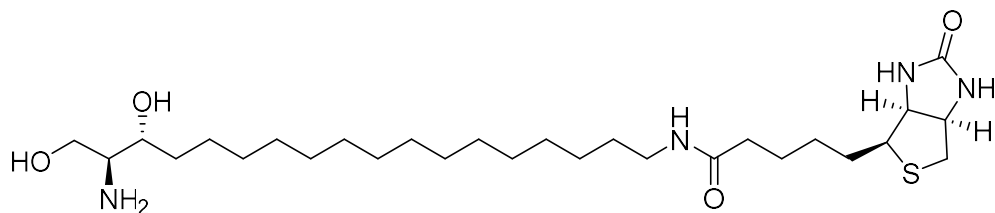


## Sphinganine-biotin

**Catalog number:** S-110B



**Molecular Formula:** C<sub>28</sub>H<sub>54</sub>N<sub>4</sub>O<sub>4</sub>S

**MW:** 542.84

**CAS#:** n/a

**Solubility:** Methanol, >1 mg/mL. Stock solutions can be diluted further into pH neutral buffer.

**Storage and Handling:** Store dry at -20 °C. Stock solutions should be stored frozen (-20 °C or below).

**Background:** Sphinganine (or Dihydrosphingosine) is an intermediate in the sphingolipid biosynthetic pathway. It is formed by the reduction of 3-Ketodihydrosphingosine by 3-Ketodihydrosphingosine Reductase (KDHR). Sphinganine is then acylated by Dihydroceramide synthase but can also act as a substrate for sphingosine kinases. Sphinganine can also inhibit Protein kinase C. Sphinganine-biotin is labeled at the terminal position and can be used for binding streptavidin coated surfaces.

**References:** 1) C.R. Gault, L.M. Obeid, Y.A. Hannum (2010) An overview of sphingolipid metabolism: from synthesis to breakdown *Adv. Exp.Med. Biol.*, **688**, 1.

2) Yung *et al* (1994) Sphinganine potentiation of dimethyl sulfoxide-induced granulocyte differentiation, increase of alkaline phosphatase activity and decrease of protein kinase C activity in a human leukemia cell line (HL-60). *Biochem.Biophys.Res.Commun.* **199**, 888.

**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.

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