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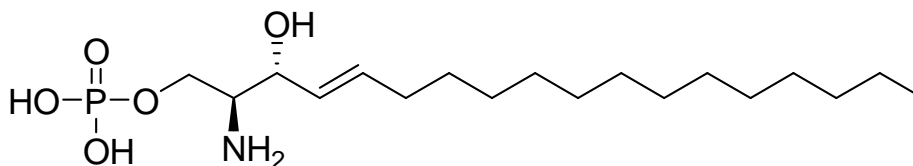
Technical Data Sheet

For research use only

Not intended or approved for
diagnostic or therapeutic use.

Product Name: Sphingosine 1-phosphate (S1P)

Product Number: S-2000



Formula: $C_{18}H_{38}NO_5P$

MW: 379.5

CAS Number: 26993-30-6

Solubility: 1 mg/mL warm acetic acid. 0.3 mg/mL MeOH (alternately vortex for 1 min then sonicate in a bath sonicator for 10 minutes until a clear solution is obtained. Heating the solution (50-65°C) can also help with solubilization)

Specifications and Storage Recommendations: Sphingosine 1-phosphate 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 S1P 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: S1P is a bioactive lysophospholipid formed by phosphorylation of sphingosine by sphingosine kinases. S1P binds to five G-protein coupled receptors designated S1P₁₋₅ leading to cell proliferation, motility, and has a role in regulation cell shape. In addition, S1P acts as an intracellular mediator in a receptor-independent manner regulating cell survival and Ca²⁺ homeostasis.

References: 1) S. Spiegel and S. Milstein "Sphingosine 1-phosphate, a key signaling molecule" *J. Biol. Chem.*, **2002**, 277, 25851-25854. 2) C. Donati and P. Bruni "Sphingosine 1-phosphate regulates cytoskeleton dynamics: Implications in its biological response" *Biochim Biophys. Acta.*, **2006**, 1758, 2037-2048.

Hazardous Properties and Cautions: No hazardous or toxic properties are known for this substance. Sphingosine 1-phosphate 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 1-phosphate 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.