Echelon Biosciences Inc.

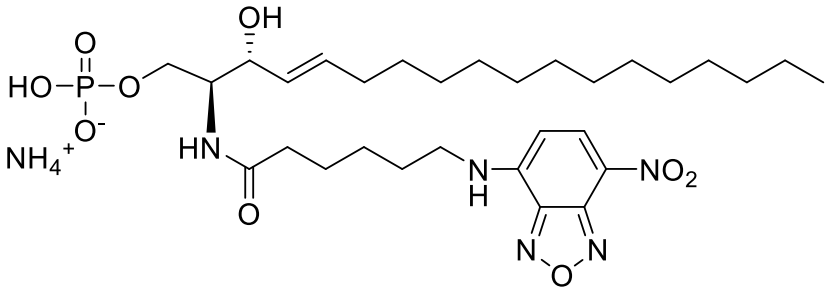
N-NBD Ceramide-1-Phosphate, ammonium salt (NBD C1P)

Catalog number: S-500N6

Molecular Formula: $C_{30}H_{53}N_6O_9P$

MW: 672.5

CAS: n/a



Excitation/Emission: 465 nm/535 nm

Solubility: MeOH >5 mg/mL.

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

Background: Ceramide 1-phosphate (C1P) is biosynthesized from ceramide by the intracellular enzyme Ceramide kinase. C1P inhibits cell apoptosis via inhibition of acid sphingomyelinase activity in contrast to ceramide which promotes apoptosis. C1P is important in inflammation, activating cytosolic phospholipase A2 alpha and releasing downstream inflammatory mediators. In addition, C1P is involved in DNA synthesis, mast cell degranulation and neutrophil phagocytosis.

References: 1) N.F. Lamour *et al.* "Ceramide kinase and the ceramide-1-phosphate/cPLA2alpha interaction as a therapeutic target." *Curr. Drug Targets,* 2008, *9*, 674-682,
2) B.J. Pettus *et al.* "Ceramide 1-phosphate is a direct activator of cytosolic phospholipase A2" *J. Biol. Chem.*, 2004, *279*, 11320-11326,
3) M. Levi, *et al.* "Distinct receptor-mediated activities in macrophages for natural ceramide-1-phosphate (C1P) and for phospho-ceramide analogue-1 (PCERA-1)" *Mol. Cell Endocrinol.*, 2010, *314*, 248-255.

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.

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