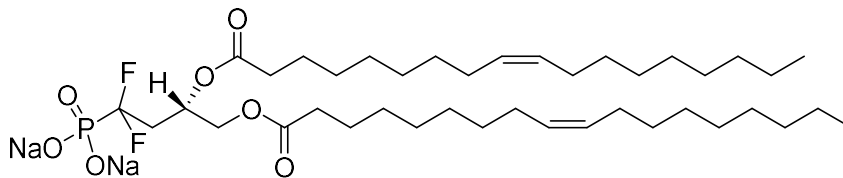


XY-14 (Lipid Phosphate Phosphatase 1 Inhibitor)

Catalog number: L-9218



Molecular Formula: C₄₀H₇₁F₂Na₂O₇P

MW: 778.94

CAS#: 478529-66-7

Alternate Name: 1,2-Dioleoyl-3-CF₂-PA, (3S)-[1,1-Difluoro-3,4-bis(oleoyloxy)butyl]phosphonate

Solubility: 2:1 DMSO:H₂O, 1 mg/mL

Storage and Handling: Store dry at -20 °C. Stock solutions should be stored frozen (-20 °C or below). Storage in basic buffers (pH > 9.0) and acidic buffers (pH < 4.0) will result in slow decomposition.

Background: XY-14 is a competitive inhibitor of Lipid Phosphate Phosphatase 1 (LPP1) which is the major enzyme responsible for degrading lysophosphatidic acid (LPA) in platelets. XY-14 (10 μM) inhibits LPP1 in human pulmonary artery endothelial cells, preventing the dephosphorylation of sphingosine 1-phosphate (S1P) to sphingosine.

References: 1) Smyth, S. S., V. A. Sciorra, et al. (2003). "Lipid Phosphate Phosphatases Regulate Lysophosphatidic Acid Production and Signaling in Platelets." *Journal of Biological Chemistry* 278(44): 43214-43223.

2) Zhao, Y., S. K. Kalari, et al. (2007). "Intracellular Generation of Sphingosine 1-Phosphate in Human Lung Endothelial Cells: Role Of Lipid Phosphate Phosphatase-1 and Sphingosine Kinase 1." *J Biol Chem* 282(19): 14165-77.

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.

Technical Data Sheet, Rev 8, 6/27/2024 – **For research use only.** Not intended for diagnostic or therapeutic use.