

Arachidonoyl LPA (20:4 LPA)

Catalog number: L-0204

Molecular Formula: C₂₃H₃₈NaO₇P

MW: 480.51

CAS#: 799268-65-8

Alternate Name: Arachidonoyl lysophosphatidic acid, D (+)-sn-1-O-arachidonoyl-glyceryl-3-phosphate

Solubility: water, >5 mg/mL

Storage and Handling: Store dry at -80 °C. Stock solutions should be stored frozen (-20 °C or below).

Background: Lysophosphatidic Acid (LPA) is a small lysophospholipid involved in diverse cellular processes such as cell proliferation, chemotaxis, platelet aggregation, wound healing, angiogenesis, tumor invasion, and smooth muscle contraction. LPA binds to several G-coupled protein receptors to initiate its biological functions. In cancer, LPA primarily promotes cell survival, migration and invasion.

References: 1) Mills, G.B. & Moolenaar, W.H. (2003) "The emerging role of lysophosphatidic acid in cancer" Nature 3: 582-591. DOI:10.1038/nrc1143.

- 2) Knowlden, S. & Georas, S.N. (2014) "The Autotaxin-LPA Axis Emerges as a Novel Regulator of Lymphocyte Homing and Inflammation" J. Immunol 192:851-857, doi: 10.4049/jimmunol.1302831.
- 3) Yung, Y.C., et al. (2014) "LPA Receptor Signaling: Pharmacology, Physiology, and Pathophysiology" J. Lip. Res. 55:1192-1214, doi: 10.1194/jlr.R046458.
- 4) Zhang, C., et al. (2004). "Lysophosphatidic Acid Induces Neointima Formation Through PPAR{gamma} Activation." J Exp Med 199(6): 763-774.

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 6, 5/30/2024 - For research use only. Not intended for diagnostic or therapeutic use.



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