

*L-sn-1-O-*oleoyl-2-*O-*methyl-glyceryl-3-phosphothionate (2S-OMPT)

Catalog number: L-9418

Molecular Formula: C₂₂H₄₃O₆PS

MW: 466.61

CAS#: 645408-61-3

Solubility: Methanol >1 mg/mL

Storage and Handling:

Background: OMPT is a metabolically-stabilized analog of Lysophosphatidic Acid (LPA) which acts as potent agonist for the LPA3 receptor. Of the two enantiomers, (2S)-OMPT is more potent than (2R)-OMPT showing 5-20 fold more activity in calcium release from LPA3-transfected Sf9 and rat hepatoma Rh7777 cells. (2S)-OMPT is also more potent in inducing calcium release, IL-6 production, and MAPK and Akt phosporylation in OVCAR3 cells.

References: 1) Lin, D. A. and J. A. Boyce (2005). "IL-4 regulates MEK expression required for lysophosphatidic acid-mediated chemokine generation by human mast cells." J Immunol 175(8): 5430-8.

- 2) Zhao, C., M. J. Fernandes, et al. (2008). "Regulation of lysophosphatidic acid receptor expression and function in human synoviocytes: implications for rheumatoid arthritis?" Mol Pharmacol 73(2): 587-600.
- 3) Qian, L., Y. Xu, et al. (2003). "Enantioselective responses to a phosphorothioate analogue of lysophosphatidic acid with LPA3 receptor-selective agonist activity." J Med Chem 46(26): 5575-8.

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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Technical Data Sheet, Rev 3, 6/27/2024 - For research use only. Not intended for diagnostic or therapeutic use.



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