

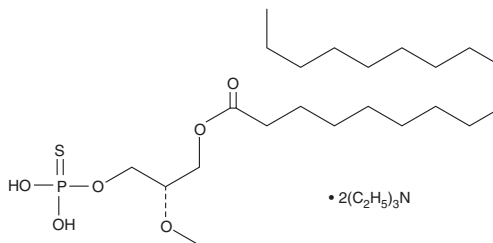
PRODUCT INFORMATION



(2S)-OMPT

Item No. 10005707

CAS Registry No.: 1217471-69-6
Formal Name: 9Z-octadecenoic acid, (2S)-3-
[(hydroxymercaptophosphinyl)
oxy]-2-methoxypropyl ester, triethyl
ammonium salt (1:2)
MF: C₂₂H₃₄O₆PS • 2(C₂H₅)₃N
FW: 669.0
Purity: ≥98%
Supplied as: A solution in ethanol:chloroform (1:1)
Storage: -20°C
Stability: ≥1 year



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

(2S)-OMPT is supplied in a (1:1) solution of ethanol:chloroform. To change the solvent, simply evaporate the ethanol:chloroform under a gentle stream of nitrogen and immediately add the solvent of choice. Solvents such as ethanol, DMSO, and dimethyl formamide purged with an inert gas can be used. The solubility of (2S)-OMPT in these solvents is approximately 30 mg/ml.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. If an organic solvent-free solution of (2S)-OMPT is needed, it can be prepared by evaporating the ethanol:chloroform and directly dissolving the neat oil in aqueous buffers. The solubility of (2S)-OMPT in PBS (pH 7.2) is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Lysophosphatidic acid (LPA) is a potent lipid mediator that elicits its effect through four distinct receptors - LPA₁/EDG-2, LPA₂/EDG-4, LPA₃/EDG-7 and LPA₄/GPR23.^{1,2} OMPT is a selective agonist of the LPA₃ receptor. It exhibits EC₅₀ values of 68 nM and ≥6.8 μM for calcium mobilization in LPA₃ and LPA₂-expressing Sf9 cells, respectively.³ The (2S)-OMPT enantiomer is 5- to 20-fold more active than (2R)-OMPT in calcium release assays in both LPA₃-transfected Sf9 and rat hepatoma Rh7777 cells.⁴

References

1. Chun, J., Goetzl, E.J., Hla, T., *et al. Pharmacol. Rev.* **54**, 265-269 (2002).
2. Niu, S.-L., Mitchell, D.C., and Litman, B.J. *Biochemistry* **44**, 4458-4465 (2005).
3. Hasegawa, Y., Erickson, J.R., Goddard, G.J., *et al. J. Biol. Chem.* **278(14)**, 11962-11969 (2003).
4. Qian, L., Xu, Y., Hasegawa, Y., *et al. J. Med. Chem.* **46**, 5575-5578 (2003).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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