

PRODUCT INFORMATION



1-Palmityl-2-hydroxy-*sn*-glycero-3-PA

Item No. 10010188

CAS Registry No.: 52603-03-9
Formal Name: 3-(hexadecyloxy)-1-(dihydrogen phosphate)-1,2R-propanediol

Synonyms: 1-Hexadecyl-2-hydroxy-*sn*-glycero-3-phosphate,
1-Hexadecyl LPA, 1-Hexadecyl Lysophosphatidic Acid,
LPA O-16:0, O-16:0 LPA, PA(O-16:0/0:0), 1-Palmityl LPA,
1-Palmityl Lysophosphatidic Acid

MF: C₁₉H₄₁O₆P

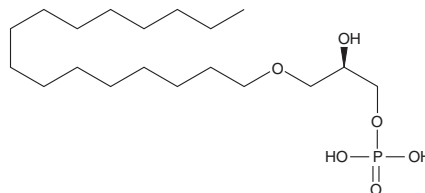
FW: 396.5

Purity: ≥98%

Supplied as: A crystalline solid

Storage: -20°C

Stability: ≥4 years



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

Laboratory Procedures

1-Palmityl-2-hydroxy-*sn*-glycero-3-PA is supplied as a crystalline solid. A stock solution may be made by dissolving the 1-palmityl-2-hydroxy-*sn*-glycero-3-PA in the solvent of choice, which should be purged with an inert gas. 1-Palmityl-2-hydroxy-*sn*-glycero-3-PA is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of 1-palmityl-2-hydroxy-*sn*-glycero-3-PA in ethanol and DMSO is approximately 20 mg/ml, and in DMF it is approximately 5 mg/ml.

1-Palmityl-2-hydroxy-*sn*-glycero-3-PA is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, 1-palmityl-2-hydroxy-*sn*-glycero-3-PA should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. 1-Palmityl-2-hydroxy-*sn*-glycero-3-PA has a solubility of approximately 0.5 mg/ml in a 1:1 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

1-Palmityl-2-hydroxy-*sn*-glycero-3-PA is an ether analog of lysophosphatidic acid (LPA) containing a hexadecyl group at the *sn*-1 position.¹ LPA binds to five different G protein-coupled receptors to mediate a variety of biological responses including cell proliferation, smooth muscle contraction, platelet aggregation, neurite retraction, and cell motility.^{2,3}

References

1. Tsukahara, T., Tsukahara, R., Yasuda, S., *et al.* Different residues mediate recognition of 1-O-oleyl-lysophosphatidic acid and rosiglitazone in the ligand binding domain of peroxisome proliferator-activated receptor γ . *J. Biol. Chem.* **281**(6), 3398-3407 (2006).
2. Moolenaar, W.H. LPA: A novel lipid mediator with diverse biological actions. *Trends Cell Biol.* **4**(6), 213-219 (1994).
3. Chun, J., Goetzl, E.J., Hla, T., *et al.* International union of pharmacology. XXXIV. Lysophospholipid receptor nomenclature. *Pharmacol. Rev.* **54**(2), 265-269 (2002).

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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