

PRODUCT INFORMATION



1-Octadecyl-2-hydroxy-*sn*-glycero-3-phosphate (sodium salt)

Item No. 10010291

Formal Name: 1-O-octadecyl-2-hydroxy-*sn*-glycero-3-phosphate, monosodium salt

Synonyms: LPA O-18:0, O-18:0 LPA, 1-Octadecyl-2-hydroxy-*sn*-glycero-3-PA, 1-Octadecyl LPA, 1-Octadecyl Lysophosphatidic Acid, 1-Oleyl LPA, 1-Oleyl Lysophosphatidic Acid, PA(O-18:0/0:0), 1-Stearyl-2-hydroxy-*sn*-glycero-3-PA

MF: C₂₁H₄₄O₆P • Na

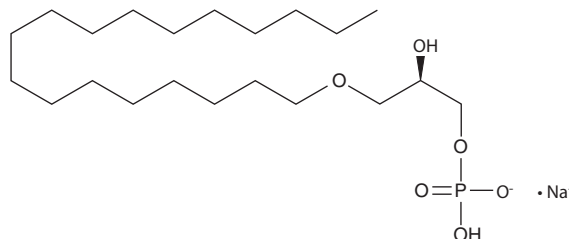
FW: 446.5

Purity: ≥95%

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.

Description

1-Octadecyl-2-hydroxy-*sn*-glycero-3-phosphate (1-Octadecyl LPA) is a LPA analog containing stearyl alcohol at the *sn*-1 position. LPA binds to one of five different G protein-linked receptors to mediate a variety of biological responses including cell proliferation, smooth muscle contraction, platelet aggregation, neurite retraction, and cell motility.^{1,2} Alkyl ether-linked LPA derivatives have a higher platelet aggregating activity than the acyl derivatives, most likely stemming from an alkyl-specific LPA receptor. For example, 1-octadecyl LPA has platelet aggregating activity with an EC₅₀ value of 9 nM versus an EC₅₀ value of 177 nM for 1-octadecanoyl LPA.³

References

1. Noguchi, K., Ishii, S., and Shimizu, T. Identification of p2y₉/GPR23 as a novel G protein-coupled receptor for lysophosphatidic acid, structurally distant from the Edg family. *J. Biol. Chem.* **278(28)**, 25600-25606 (2003).
2. Moolenaar, W.H. LPA: A novel lipid mediator with diverse biological actions. *Trends Cell Biol.* **4(6)**, 213-219 (1994).
3. Tokumura, A., Sinomiya, J., Kishimoto, S., et al. Human platelets respond differentially to lysophosphatidic acids having a highly unsaturated fatty acyl group and alkyl ether-linked lysophosphatidic acids. *Biochem. J.* **365(Pt 3)**, 617-628 (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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