

# Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

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# Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

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# PRODUCT INFORMATION



# 1-Palmitoyl-do Lysophosphatidic Acid

Item No. 33479

Formal Name: hexadecanoic acid-

13,13,14,14,15,15,16,16,16-d<sub>o</sub>,

2R-hydroxy-3-(phosphonooxy)propyl ester

Synonym: 1-Palmitoyl-do LPA MF:  $C_{19}H_{30}D_9O_7P$ 

FW: 419.5

**Chemical Purity:** ≥95% (1-Palmitoyl Lysophosphatidic Acid)

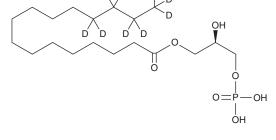
Deuterium

Incorporation: ≥99% deuterated forms  $(d_1-d_0)$ ; ≤1%  $d_0$ 

Supplied as: A solution in chloroform

Storage: -20°C Stability: ≥1 year

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



#### **Laboratory Procedures**

1-Palmitoyl-do lysophosphatidic acid (1-palmitoyl-do LPA) is intended for use as an internal standard for the quantification of 1-palmitoyl LPA (Item Nos. 10010094 | 10010290) by GC- or LC-MS. The accuracy of the sample weight in this vial is between 5% over and 2% under the amount shown on the vial. If better precision is required, the deuterated standard should be quantitated against a more precisely weighed unlabeled standard by constructing a standard curve of peak intensity ratios (deuterated versus unlabeled).

1-Palmitoyl-d<sub>o</sub> LPA is supplied as a solution in chloroform. To change the solvent, simply evaporate the chloroform under a gentle stream of nitrogen and immediately add the solvent of choice. Solvents such as ethanol purged with an inert gas can be used. The solubility of 1-palmitoyl-d<sub>o</sub> LPA in ethanol is approximately 10 mg/ml.

### Description

1-Palmitoyl LPA is an analog of LPA that contains palmitic acid (Item No. 10006627) at the sn-1 position. It induces reporter gene expression in PC12 cells expressing human lysophosphatidic acid receptor 4 (LPA<sub>d</sub>) when used at concentrations ranging from 0.01 to 10  $\mu$ M.<sup>1</sup> 1-Palmitoyl LPA (12-300 μM) induces aggregation of isolated human platelets, an effect that can be reversed by prostaglandin E<sub>1</sub> (PGE<sub>1</sub>; Item No. 13010), theophylline (Item No. 23760), or EDTA.<sup>2</sup> It also binds to calcium and magnesium and enhances the activity of ampicillin (Item No. 14417), piperacillin (Item No. 20766), and ceftazidime (Item No. 14828) against P. aeruginosa isolates from patients with cystic fibrosis.3

### References

- 1. Noguchi, K., Ishii, S., and Shimizu, T. Identification of p2y<sub>o</sub>/GPR23 as a novel G protein-coupled receptor for lysophosphatidic acid, structurally distant from the Edg family. J. Biol. Chem. 278(28), 25600-25606
- 2. Gerrard, J.M., Kindom, S.E., Peterson, D.A., et al. Lysophosphatidic acids. Influence on platelet aggregation and intracellular calcium flux. Am. J. Pathol. 96(2), 423-438 (1979).
- Krogfelt, K.A., Utley, M., Krivan, H.C., et al. Specific phospholipids enhance the activity of β-lactam antibiotics against Pseudomonas aeruginosa. J. Antimicrob. Chemother. 46(3), 377-384 (2000).

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

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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