

# PRODUCT INFORMATION



## 1-Myristyl-2-hydroxy-*sn*-glycero-3-PA

Item No. 9001408

**Formal Name:** (R)-2-hydroxy-3-(tetradecyloxy)propyl dihydrogen phosphate

**Synonyms:** PA(O-14:0/0:0), PA(14:0/0:0), LPA O-14:0, O-14:0 LPA, 1-Myristyl LPA, 1-Myristyl Lysophosphatidic Acid, 1-Tetradecyl-2-hydroxy-*sn*-glycero-3-phosphate

**MF:** C<sub>17</sub>H<sub>37</sub>O<sub>6</sub>P

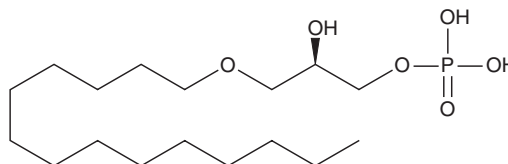
**FW:** 368.5

**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-Myristyl-2-hydroxy-*sn*-glycero-3-PA (1-myristyl LPA) is supplied as a crystalline solid. A stock solution may be made by dissolving the 1-myristyl LPA in the solvent of choice, which should be purged with an inert gas. 1-myristyl LPA is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of 1-myristyl LPA in these solvents is approximately 25, 2.5, and 2 mg/ml, respectively.

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. Organic solvent-free aqueous solutions of 1-myristyl LPA can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of 1-myristyl LPA in PBS (pH 7.2) is approximately 3 mg/ml. We do not recommend storing the aqueous solution for more than one day.

### Description

1-myristyl LPA is an LPA derivative containing myristic acid (Item No. 13351) at the *sn*-1 position and agonist of lysophosphatidic acid receptor 1 (LPA<sub>1</sub>) and LPA<sub>2</sub>.<sup>1</sup> It increases calcium mobilization in a reporter assay using HEL 92.1.7 cells (EC<sub>50</sub> = 37 nM).

### Reference

1. Nilsson, U.K., Andersson, R.G.G., Ekeroth, J., *et al.* Lack of stereospecificity in lysophosphatidic acid enantiomer-induced calcium mobilization in human erythroleukemia cells. *Lipids* **38(10)**, 1057-1064 (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.

#### WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 04/29/2024

#### CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD  
ANN ARBOR, MI 48108 · USA

**PHONE:** [800] 364-9897  
[734] 971-3335

**FAX:** [734] 971-3640

CUSTSERV@CAYMANCHEM.COM  
WWW.CAYMANCHEM.COM