



1-Oleoyl-2-hydroxy-sn-glycero-3-PE

Cat. No.:	OB0626WX-3993
Appearance:	Crystalline solid
Purity:	≥95%
Identity:	Confirmed by NMR, TLC, and IR.
Size:	5 mg; 10 mg; 25 mg; 50 mg

This product is for research use only and is not intended for diagnostic use.

Product Overview

Description

1-Oleoyl-2-hydroxy-sn-glycero-3-PE is a naturally occurring lysophospholipid and an analog of plasmalogen lysophosphoethanolamine that modulates cellular and adaptive physiological pathways. This molecule stimulates transient, receptor-mediated intracellular calcium fluxes in neural lineages and orchestrates distinct T-helper 2 immune responses by elevating interleukin production in natural killer T cells and splenocytes, while demonstrating sensitive accumulation within brown adipose tissue following cold exposure.



Synonyms

1-oleoyl-2-hydroxy-sn-glycero-3-phosphatidylethanolamine; 18:1 LPE; 18:1 Lyso-PE ; 1-Oleoyl-2-hydroxy-sn-glycero-3-phosphoethanolamine; PE(18:1(9Z)/0:0); 89576-29-4; 1-(9Z-octadecenoyl)-sn-glycero-3-phosphoethanolamine; O-LysoP E; 1-Oleoyl-sn-glycero-3-phosphoethanolamine; LPE(18:1/0:0); LysoPE(18:1/0:0); L yso-PE(18:1/0:0); (2R)-3-(((2-Aminoethoxy)(hydroxy)phosphoryl)oxy)-2-hydroxypropyl oleate; [(2R)-3-[2-aminoethoxy(hydroxy)phosphoryl]oxy-2-hydroxy propyl] (Z)-octadec-9-enoate; LysoPE(18:1(9Z)/0:0); Lysophosphatidylethanolamine(18:1/0:0); PE(18:1/0:0); 1-18:1-lysophosphatidylethanolamine; 9-Octadecenoic acid (9Z)-, (2R)-3-[[[(2-aminoethoxy)hydroxyphosphinyl]oxy]-2-hydroxypropyl ester; LPE 18:1; (2R)-3-[(2-azaniumylethyl phosphonate)oxy]-2-hydroxypropyl (9Z)-octadec-9-enoate; LysoPE(18:1omega9/0:0); Ly soPE(18:1n9/0:0); LysoPE(18:1w9/0:0); Lyso-PE(18:1omega9/0:0); Lyso-PE(18:1n9/0:0); Lyso-PE(18:1w9/0:0); LPE(18:1n9/0:0); LPE(18:1w9/0:0); Lysophosphatidylethanolamine(18:1n9/0:0); Lysophosphatidylethanolamine(18:1w9/0:0); PE 18:1(9Z)/0:0; Lysophosphatidylethanolamine(18:1omega9/0:0); 1-C18:1(omega-9)-lysophosphatidylethanolamine; (2R)-3-[[[(2-aminoethoxy)(hydroxy)phosphoryl]oxy]-2-hydroxypropyl (9Z)-octadec-9-enoate; [(2R)-3-[2-aminoethoxy(hydroxy)phosphoryl]oxy-2-hydroxy-propyl] (Z)-octadec-9-enoate; 9-Octadecenoic acid (Z)-, 3-[[[(2-aminoethoxy)hydroxyphosphinyl]oxy]-2-hydroxypropyl ester, (R)-; 1-(9Z)-octadecenoyl-sn-glycero-3-phosphoethanolamine; LPE(18:1)

CAS No.

89576-29-4

Compound CID

9547071

Formula

C₂₃H₄₆NO₇P

Formula Weight

479.6

Specification

Solubility in Other Solvents

Chloroform: 3 mg/mL

IUPAC Name

[(2R)-3-[2-aminoethoxy(hydroxy)phosphoryl]oxy-2-hydroxypropyl] (Z) -octadec-9-enoate

InChI

InChI=1S/C23H46NO7P/c1-2-3-4-5-6-7-8-9-10-11-12-13-14-15-16-17-23(26)29-20-22(25)21-31-32(27,28)30-19-18-24/h9-10,22,25H,2-8,11-21,24H2,1H3,(H,27,28)/b10-9-/t22-/m1/s1

InChI Key

PYVRVRFVLRNjLY-MZMPXXGTSA-N

Canonical SMILES

O[C@@H](COP(OCC[NH3+]))([O-])=O)COC(CCCCCC/C=C\CCCCCCCC)=O

Stability

1 year

Storage

Storage at -20°C.

Applications

1-Oleoyl-2-hydroxy-sn-glycero-3-PE serves as a lysophosphatidylethanolamine reference compound for investigations of phospholipid remodeling, membrane lipid metabolism, and lysophospholipid biology. It supports lipidomic profiling, analytic method development, and characterization of phospholipid transformation pathways.