1-Oleoyl Lysophosphatidic Acid (sodium salt)

**Item No. 62215**

**CAS Registry No.:** 22556-62-3  
**Formal Name:** 1-O-9Z-octadecenoyl-sn-glyceryl-3-phosphoric acid, monosodium salt  
**Synonym:** Oleoyl-sn-3-glycerophosphate  
**MF:** C_{21}H_{40}O_7P • Na  
**FW:** 458.5  
**Purity:** ≥95%  
**Supplied as:** A crystalline solid  
**Storage:** -20°C  
**Stability:** ≥2 years

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

**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.

**Laboratory Procedures**

1-Oleoyl lysophosphatidic acid (sodium salt) is supplied as a crystalline solid. 1-Oleoyl lysophosphatidic acid (sodium salt) is sparingly soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. For biological experiments, we suggest that organic solvent-free aqueous solutions of 1-oleoyl lysophosphatidic acid (sodium salt) be prepared by directly dissolving the crystalline compound in aqueous buffers. The solubility of 1-oleoyl lysophosphatidic acid (sodium salt) in PBS, (pH 7.2), is approximately 8.3 mg/ml. We do not recommend storing the aqueous solution for more than one day.

**Description**

1-Oleoyl lysophosphatidic acid is a species of lysophosphatidic acid (LPA) containing oleic acid at the sn-1 position. Phosphatidic acid is produced either directly through the action of PLD or through a two step process involving liberation of DAG by PLC followed by phosphorylation of DAG by diglycerol kinase.¹ Hydrolysis of the fatty acid at the sn-2 position by PLA₂ yields bioactive LPA. LPA binds to four different G-protein linked receptors² to mediate a variety of biological responses including cell proliferation, smooth muscle contraction, platelet aggregation, neurite retraction, and cell motility.¹ 1-Oleoyl lysophosphatidic acid is the most potent of the LPA analogs for calcium mobilization in A431 cells³ and for growth stimulation of a variety of cell lines.⁴

**References**