Certificate of Analysis

Product Name: **1-Oleoyl lysophosphatidic acid sodium salt** **Catalog No.: 3854** **Batch No.: 17**

CAS Number: 325465-93-8

IUPAC Name: 1-*O*-9Z-Octadecenoyl-*sn*-glyceryl-3-phosphoric acid sodium salt

1. PHYSICAL AND CHEMICAL PROPERTIES

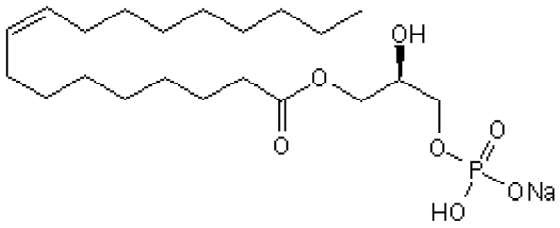
Batch Molecular Formula: $C_{21}H_{40}NaO_7P$

Batch Molecular Weight: 458.5

Physical Appearance: White solid

Storage: Store at -20°C

Batch Molecular Structure:



2. ANALYTICAL DATA

Mass Spectrum: Consistent with structure

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Description:

1-Oleoyl lysophosphatidic acid sodium salt is an endogenous agonist of the lysophospholipid receptors LPA_1 and LPA_2. 1-Oleoyl lysophosphatidic acid sodium salt inhibits differentiation of neural stem cells (NSCs) into neurons. Note: This product is typically prepared in PBS, pH 7.2, at a concentration of up to approximately 4 mg/mL.

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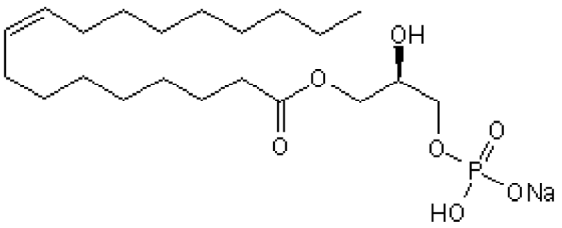

Storage: Store at -20°C

Solubility & Usage Info:

This product is supplied in lyophilized form. It may appear as a solid, gel or film and be very hard to visualize. Solutions should be made by adding solvent directly to the vial. The vial should then be vortexed vigorously to ensure the product has completely dissolved.

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. *Unless contradicted by product-specific protocols or instructions, our standard recommendations apply:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

References:

Lapierre *et al* (2010) Lysophosphatidic acid signals through multiple receptors in osteoclasts to elevate cytosolic calcium concentration, evoke retraction, and promote cell survival. J.Biol.Chem. ***285*** 25792. PMID: 20551326.

Dottori *et al* (2008) Lysophosphatidic acid inhibits neuronal differentiation of neural stem/progenitor cells derived from human embryonic stem cells. Stem Cells ***26*** 1146. PMID: 18308941.

van Corven *et al* (1992) Mitogenic action of lysophosphatidic acid and phosphatidic acid on fibroblasts. Biochem.J. ***281*** 163. PMID: 1731751.