1-Oleoyl lysophosphatidic acid sodium

Cat. No.: HY-107614

CAS No.: 325465-93-8

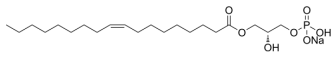
Molecular Formula: $C_{21}H_{40}NaO_7P$

Molecular Weight: 458.5

Target: LPL Receptor

Pathway: GPCR/G Protein

Storage: -20°C, sealed storage, away from moisture
* In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



SOLVENT & SOLUBILITY

In Vitro

H_2O : 100 mg/mL (218.10 mM; Need ultrasonic)
DMSO : 1.85 mg/mL (4.03 mM; ultrasonic and warming and adjust pH to 5 with HCl and heat to 60°C)

Preparing Stock Solutions

Concentration \ Solvent \ Mass	1 mg	5 mg	10 mg
1 mM	2.1810 mL	10.9051 mL	21.8103 mL
5 mM	0.4362 mL	2.1810 mL	4.3621 mL
10 mM	0.2181 mL	1.0905 mL	2.1810 mL

Please refer to the solubility information to select the appropriate solvent.

BIOLOGICAL ACTIVITY

Description

1-Oleoyl lysophosphatidic acid (1-Oleoyl-sn-glycero-3-phosphate) sodium, a potent bioactive phospholipid, is a LPA receptor activator. 1-Oleoyl lysophosphatidic acid sodium can promote mitosis by inducing DNA synthesis. 1-Oleoyl lysophosphatidic acid sodium is also involved in normal and pathological emotional responses, including anxiety and depression[1][2][3].

IC_{50} & Target

LPA receptor[1]

In Vitro

1-Oleoyl lysophosphatidic acid (0.1-10 μM) sodium elicits an acute rise of $[Ca^{2+}]i$ in rat and rabbit osteoclasts[2].
?1-Oleoyl lysophosphatidic acid (5 μM) sodium induces retraction of osteoclast lamellipodia[2].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Corven EJ, et, al. Mitogenic action of lysophosphatidic acid and phosphatidic acid on fibroblasts. Dependence on acyl-chain length and inhibition by suramin. Biochem

J. 1992 Jan 1;281 (Pt 1)(Pt 1):163-9.

[2]. Lapierre DM, et, al. Lysophosphatidic acid signals through multiple receptors in osteoclasts to elevate cytosolic calcium concentration, evoke retraction, and promote cell survival. J Biol Chem. 2010 Aug 13;285(33):25792-801.

[3]. Castilla-Ortega E, et, al. 1-Oleoyl lysophosphatidic acid: a new mediator of emotional behavior in rats. PLoS One. 2014 Jan 7;9(1):e85348.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA