

L- $\alpha$ -lysophosphatidylinositol sodium

## Chemical Properties

CAS No. :	796963-91-2
Formula:	C <sub>25</sub> H <sub>48</sub> NaO <sub>12</sub> P
Molecular Weight:	594.6
Storage:	Store at low temperature,Keep away from direct sunlight,Keep away from moisture Powder: -20°C for 3 years   In solvent: -80°C for 1 year <small>Actual storage temperature shall be subject to the COA.</small>

## Biological Description

Description	L- $\alpha$ -lysophosphatidylinositol sodium is an endogenous ligand of GPR55 and an endogenous cannabinoid neurotransmitter that is involved in controlling cell survival and tumor progression.
Targets(IC50)	Cannabinoid Receptor
In vitro	Concentration-response studies in murine iPSC cardiomyocytes demonstrated that L- $\alpha$ -lysophosphatidylinositol sodium-induced DMR activity in a concentration-dependent manner (EC <sub>50</sub> = 778 nM) and that the time course of the DMR response was rapid in onset, reached peak activity at 10 minutes post application and persisted for the duration of the period of measurement (90 minutes). [1]
In vivo	Challenging WT hearts with L- $\alpha$ -lysophosphatidylinositol sodium prior to the onset of global ischemia significantly increased infarct size compared to vehicle controls, whereas this was not seen in seen GPR55 <sup>-/-</sup> hearts, confirming an action of L- $\alpha$ -lysophosphatidylinositol sodium at GPR55. L- $\alpha$ -lysophosphatidylinositol sodium increases myocardial infarct size in hearts from wild type, but not GPR55 <sup>-/-</sup> , mouse hearts. [1]

## Solubility Information

Solubility	DMSO: 4 mg/mL (6.73 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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### Preparing Stock Solutions

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	1mg	5mg	10mg
1 mM	1.6818 mL	8.409 mL	16.818 mL
5 mM	0.3364 mL	1.6818 mL	3.3636 mL
10 mM	0.1682 mL	0.8409 mL	1.6818 mL
50 mM	0.0336 mL	0.1682 mL	0.3364 mL

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Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

### Reference

Robertson-Gray OJ, et al. l- $\alpha$ -Lysophosphatidylinositol (LPI) aggravates myocardial ischemia/reperfusion injury via a GPR55/ROCK-dependent pathway. *Pharmacol Res Perspect*. 2019 May 24;7(3):e00487.

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Tel:781-999-4286 E\_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481