

POV-PC

Chemical Properties

CAS No. : 121324-31-0

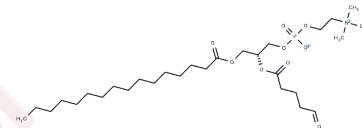
Formula: C₂₉H₅₆N₂O₉P

Molecular Weight: 593.73

Store at low temperature

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Actual storage temperature shall be subject to the COA.



Biological Description

Description	POV-PC is an oxidized phospholipid that inhibits VSMC growth under high serum conditions and induces apoptosis under low serum conditions. POVPC reduces NO production and expression of CD31 and endothelial NOS, triggering ferroptosis in vascular smooth muscle cells, promoting vascular calcification.
Targets(IC50)	Apoptosis
In vitro	POV-PC (0-100 μ M; 13 h) Inhibited VSMC growth in a dose-dependent manner. POV-PC (50 μ M; 2, 4, 6 h) induced apoptosis in a time-dependent manner. [1] POV-PC (30 μ g/ml) enhanced endothelial barrier breakdown caused by heat-inactivated Staphylococcus aureus (HKSA). [2]
In vivo	In a mouse model of acute lung injury induced by intranasal injection of HKSA, intravenous injection of POV-PC(10 mg/kg) increased HKSA-induced BAL protein content and cell count, as well as tissue expression of TNF- α , KC, IL1 β and CCL2. And promoted blood vessel leakage in Evans Blue's lung infiltration monitoring. [2]

Solubility Information

Solubility	DMSO: 8 mg/mL (13.47 mM),Sonication is recommended. DMF: 8 mg/mL (13.47 mM),Sonication is recommended. Ethanol: 8 mg/mL (13.47 mM),Sonication is recommended. PBS (pH 7.2): 8 mg/mL (13.47 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
------------	---

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.6843 mL	8.4213 mL	16.8427 mL
5 mM	0.3369 mL	1.6843 mL	3.3685 mL
10 mM	0.1684 mL	0.8421 mL	1.6843 mL
50 mM	0.0337 mL	0.1684 mL	0.3369 mL

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

Fruhirth GO, et al. The oxidized phospholipids POVPC and PGPC inhibit growth and induce apoptosis in vascular smooth muscle cells. *Biochim Biophys Acta*. 2006 Sep;1761(9):1060-9.

Karki P, et al. Truncated oxidized phospholipids exacerbate endothelial dysfunction and lung injury caused by bacterial pathogens. *Cell Signal*. 2023 Sep;109:110804.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

This product is for Research Use Only · Not for Human or Veterinary or Therapeutic Use

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