

1-Palmitoyl-2-Linoleoyl-sn-glycero-3-PC

Chemical Properties

CAS No. :	17708-90-6
Formula:	C42H80NO8P
Molecular Weight:	758.08
Storage:	Store at low temperature, Keep away from direct sunlight 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	1-Palmitoyl-2-Linoleoyl-sn-glycero-3-PC (PLPC) is a naturally occurring phosphatidylcholine in which the sn-1 and sn-2 positions of the glycerol backbone are linked to saturated palmitic acid (16:0) and polyunsaturated linoleic acid (18:2 (9Z, 12Z)), and is an important glycerophospholipid component of cell membranes and lipoproteins. Because it contains both saturated and polyunsaturated fatty acid chains, PLPC exhibits moderate membrane fluidity in biological membranes; the linoleic acid side chain contains a double bond that is prone to oxidation, making it commonly used in studies of lipid peroxidation. PLPC is widely used in the construction of liposomes, micelles, and artificial membrane models to study membrane physical properties, oxidative damage, and lipid-related biological processes. In biomedical research, it is also frequently used as a control lipid to assess the effects of oxidative stress on membrane function.
Targets(IC50)	Liposome

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.3191 mL	6.5956 mL	13.1912 mL
5 mM	0.2638 mL	1.3191 mL	2.6382 mL
10 mM	0.1319 mL	0.6596 mL	1.3191 mL
50 mM	0.0264 mL	0.1319 mL	0.2638 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

Conte E, et al. Lipid peroxidation and water penetration in lipid bilayers: a W-band EPR study. *Biochim Biophys Acta*. 2013 Feb;1828(2):510-7.

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