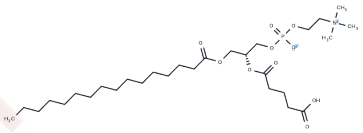
Data Sheet (Cat.No.T35959)

PGPC

Chemical Properties



CAS No. : 89947-79-5

Formula: C29H56NO10P

Molecular Weight: 609.73

Storage: Store at low temperature,Keep away from moisture
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	PGPC (1-Palmitoyl-2-glutaryl phosphatidylcholine) is an oxidized phospholipid and activates peroxisome proliferator-activated receptor in a concentration-dependent manner.
Targets(IC50)	Others
In vitro	PGPC activates peroxisome proliferator-activated receptor in a concentration-dependent manner[3]. PGPC increases VCAM1 and E-selectin expression in human aortic endothelial cells, as well as HAEC binding by monocytes and polymorphonuclear neutrophils, in a concentration-dependent manner[4].

Solubility Information

Solubility	Ethanol: 20 mg/mL (32.8 mM),Sonication is recommended. DMSO: 1 mg/mL (1.64 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.6401 mL	8.2004 mL	16.4007 mL
5 mM	0.328 mL	1.6401 mL	3.2801 mL
10 mM	0.164 mL	0.820 mL	1.6401 mL
50 mM	0.0328 mL	0.164 mL	0.328 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

Fruhwirth, G.O., Loidl, A., and Hermetter, A. Oxidized phospholipids: From molecular properties to disease. Biochimica et Biophysica Acta 1772, 718-736 (2007).

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Lee, H., Shi, W., Tontonoz, P., et al. Role for peroxisome proliferator-activated receptor α in oxidized phospholipid-induced synthesis of monocyte chemotactic protein-1 and interleukin-8 by endothelial cells. Circ. Res. 87(6), 516-521 (2000).

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Fruhwirth, G.O., Moumtzi, A., Loidl, A., et al. The oxidized phospholipids POVPC and PGPC inhibit growth and induce apoptosis in vascular smooth muscle cells. Biochim. Biophys. Acta. 1761(9), 1060-1069 (2006).

Mozzini, C., Frata Pasini, A., Garbin, U., et al. Increased endoplasmic reticulum stress and Nrf2 repression in peripheral blood mononuclear cells of patients with stable coronary artery disease. Free Radic. Biol. Med. 68, 178-185 (2014).

Gruber, F., Bicker, W., Oskolkova, O.V., et al. A simplified procedure for semi-targeted lipidomic analysis of oxidized phosphatidylcholines induced by UVA irradiation. J. Lipid. Res. 53(6), 1232-1242 (2012).