Product Data Sheet

Product Name: Oleyloxyethyl Phosphorylcholine
Cat. No.: GC13276

Chemical Properties

Cas. No.	84601-19-4		
Chemical Name	1-O-9Z-octadecenylethyleneglycol-2-O-phosphorylcholine		
SMILES	CCCCCCCC/C=C\CCCCCCCCOCCOP([O-])(OCC[N+](C)(C)C)=O		
Formula	$C_{25}H_{52}NO_5P$	M.Wt	477.7
Solubility	≤16mg/ml in DMSO;16mg/ml in dimethyl formamide	Storage	Store at -20°C
General tips	For obtaining a higher solubility , please warm the tube at 37 ℃ and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20℃ for several months.		
Shipping Condition	Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.		
Structure			

Background

IC50: 6.2 μM for porcine pancreatic PLA2

Oleyloxyethyl phosphorylcholine is a PLA2 inhibitor.

Phospholipases A2 (PLA2s) are enzymes releasing fatty acids from glycerol. This particular phospholipase can specifically recognize the sn-2 acyl bond of phospholipids and catalytically hydrolyze the bond releasing arachidonic acid and lysophosphatidic acid. Upon downstream modification by cyclooxygenases, arachidonic acid is modified into active eicosanoids, which are categorized as anti-inflammatory and inflammatory mediators.

In vitro: To examine the phospholipids including oleyloxyethyl phosphorylcholine as PLA2 inhibitors, the enzyme assay was employed. Determinations were performed below critical micelle concentration. Porcine pancreatic PLA2 and phospholipid inhibitor were preincubated for 2 min at 37°C in buffer at pH 8.5. Introduction of [l4C]arachidonate

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phosphatidylcholine initiated the enzymatic reaction, which is quenched after 5 min at 37°C. In this manner 50% inhibitor concentrations were determined for mepacrine and alkylphosphorylcholines, indicating oleyloxyethyl phosphorylcholine was an inhibitor of PLA2 with an IC50 of 6.2 μM for porcine pancreatic PLA2 [1].

In vivo: Up to now, there is no animal in vivo data reported.

Clinical trial: So far, no clinical study has been conducted.

Reference:
[1] Magolda, R. L.,Ripka, W.C.,Galbraith, W., et al. Novel synthesis of potent site-specific phospholipase A2 inhibitors. Book: Prostaglandins, Leukotrienes and Lipoxins 669-676 (1985).

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