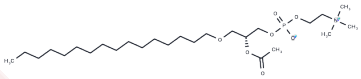
Data Sheet (Cat.No.T21547)

TargetMol

PAF (C16)

Chemical Properties



CAS No. : 74389-68-7

Formula: C26H54NO7P

Molecular Weight: 523.68

Storage: Store at low temperature
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	PAF (C16) is a potent MAPK and MEK/ERK activator that induces increased vascular permeability. PAF (C16) (PAF (C16)) is a platelet-activating factor, a phospholipid-derived mediator and a ligand for PAF G protein-coupled receptor (PAFR). PAF (C16) has shown anti-apoptotic and anti-inflammatory activity in vitro, inhibiting Caspase-dependent apoptosis by interacting with its receptor (PAF-R) to perform cell signaling.
Targets(IC50)	ERK,MEK,MAPK,Endogenous Metabolite,p38 MAPK
In vitro	In PAFR+/+ cultures, C16-PAF (PAF (C16); 0.5-1.5 μM; for 24 hours) does not elicit significant concentration-dependent neuronal loss, whereas it does induce significant concentration-dependent neuronal loss in PAFR?/? cultures. Specifically, C16-PAF (1 μM) induces neuronal death in PAFR?/? cells infected with EGFP alone[1].In PAFR neurons, C16-PAF (1 μM; for 24 hours) activates caspase 7 but not caspase 3[1]. Synthesized by two distinct pathways, the remodeling pathway and the de novo synthesis pathway, C16-PAF acts by binding to a unique G-protein-coupled seven-transmembrane receptor[2][3]. Furthermore, C16-PAF (1-25 μg/ml; 6, 12, 24 h) exhibits time-dependent inhibition of M. smegmatis and M. bovis BCG growth[3].

Solubility Information

Solubility	H2O: 30 mg/mL (57.29 mM),Sonication is recommended. DMSO: 40 mg/mL (76.38 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween-80+45% Saline: 2 mg/mL (3.82 mM),Sonication is recommended. *Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.9096 mL	9.5478 mL	19.0956 mL
5 mM	0.3819 mL	1.9096 mL	3.8191 mL
10 mM	0.191 mL	0.9548 mL	1.9096 mL
50 mM	0.0382 mL	0.191 mL	0.3819 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

Scott D Ryan, et al. Heterogeneity in the sn-1 carbon chain of platelet-activating factor glycerophospholipids determines pro- or anti-apoptotic signaling in primary neurons. J Lipid Res. 2008 Oct;49(10):2250-8.
Z Honda, et al. Transfected platelet-activating factor receptor activates mitogen-activated protein (MAP) kinase and MAP kinase kinase in Chinese hamster ovary cells. J Biol Chem. 1994 Jan 21;269(3):2307-15.
Muhammad S Riaz, et al. Direct Growth Inhibitory Effect of Platelet Activating Factor C-16 and Its Structural Analogs on Mycobacteria. Front Microbiol. 2018 Sep 11;9:1903.