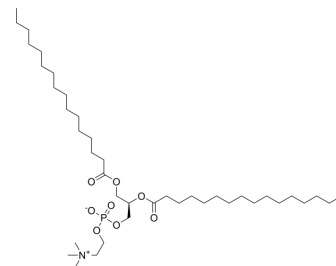


DPPC

Cat. No.:	HY-109506
CAS No.:	63-89-8
Molecular Formula:	C ₄₀ H ₈₀ NO ₈ P
Molecular Weight:	734.04
Target:	Endogenous Metabolite; Liposome
Pathway:	Metabolic Enzyme/Protease
Storage:	-20°C, sealed storage, away from moisture * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



SOLVENT & SOLUBILITY

In Vitro

Ethanol : 25 mg/mL (34.06 mM; Need ultrasonic)
DMSO : < 1 mg/mL (insoluble or slightly soluble)
H₂O : < 0.1 mg/mL (insoluble)

Preparing Stock Solutions	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
	1 mM	1.3623 mL	6.8116 mL	13.6232 mL
	5 mM	0.2725 mL	1.3623 mL	2.7246 mL
	10 mM	0.1362 mL	0.6812 mL	1.3623 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

- Add each solvent one by one: 10% EtOH >> 40% PEG300 >> 5% Tween-80 >> 45% saline
Solubility: 2.5 mg/mL (3.41 mM); Suspended solution; Need ultrasonic
- Add each solvent one by one: 10% EtOH >> 90% corn oil
Solubility: ≥ 2.5 mg/mL (3.41 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

DPPC (129Y83) is a phosphoglyceride that can be used to prepare lipid monolayers, bilayers, and liposomes. DPPC is the main lipid component of pulmonary surfactant. Dppc-liposome can be effectively used as a delivery vector to induce an immune response against GSL antigen in mice^{[1][2][3][4][5]}.

IC₅₀ & Target

Human Endogenous Metabolite	Microbial Metabolite
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CUSTOMER VALIDATION

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- Nano Today. 2021, 101151.
 - Biol Direct. 2023 Oct 24;18(1):67.
 - Spectrochim Acta A Mol Biomol Spectrosc. 2024 Mar 18;314:124172.

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- [2]. Kalra VK, et al. Transport of amino acids in gamma-glutamyl transpeptidase-implanted human erythrocytes. J Biol Chem. 1981 Jun 10;256(11):5567-71.
- [3]. Leekumjorn S, et al. Molecular simulation study of structural and dynamic properties of mixed DPPC/DPPE bilayers. Biophys J. 2006 Jun 1;90(11):3951-65.
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- [5]. Akiko Uemura, et al. Induction of immune responses against glycosphingolipid antigens: comparison of antibody responses in mice immunized with antigen associated with liposomes prepared from various phospholipids. J Vet Med Sci. 2005 Dec;67(12):1197-201.
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Caution: Product has not been fully validated for medical applications. For research use only.

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA