

# **Product** Data Sheet

# **DPPC**

**Cat. No.:** HY-109506 **CAS No.:** 63-89-8

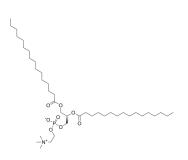
Molecular Formula:  $C_{40}H_{80}NO_8P$ Molecular Weight: 734.04

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 n

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

 $H_2O$ : < 0.1 mg/mL (insoluble)

Preparing Stock Solutions	Solvent Mass Concentration	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

- 1. 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
- 2. 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<sup>[1][2][3][4][5]</sup>.

IC<sub>50</sub> & Target

Human Endogenous

Metabolite

Microbial Metabolite

### **CUSTOMER VALIDATION**

- Nano Today. 2021, 101151.
- Biol Direct. 2023 Oct 24;18(1):67.

See more customer validations on www.MedChemExpress.com

#### **REFERENCES**

- [1]. Ege C, et al. Insertion of Alzheimer's A beta 40 peptide into lipid monolayers. Biophys J. 2004 Sep;87(3):1732-40.
- [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.
- [4]. Miller AD. Delivery of RNAi therapeutics: work in progress. Expert Rev Med Devices. 2013 Nov;10(6):781-811.
- [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.

Caution: Product has not been fully validated for medical applications. For research use only.

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

E-mail: tech@MedChemExpress.com

Tel: 609-228-6898 Fax: 609-228-5909