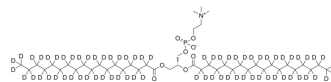


1,2-Distearoyl-sn-glycero-3-phosphorylcholine-d₇₀

Cat. No.:	HY-W040193S		
CAS No.:	56952-01-3		
Molecular Formula:	C ₄₄ H ₁₈ D ₇₀ NO ₈ P		
Molecular Weight:	860.58		
Target:	Isotope-Labeled Compounds; Liposome		
Pathway:	Others; Metabolic Enzyme/Protease		
Storage:	Powder	-20°C	3 years
	In solvent	-80°C	6 months
		-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

Ethanol : ≥ 30 mg/mL (34.86 mM)
 * "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
	1 mM	1.1620 mL	5.8100 mL	11.6201 mL
	5 mM	0.2324 mL	1.1620 mL	2.3240 mL
	10 mM	0.1162 mL	0.5810 mL	1.1620 mL

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

BIOLOGICAL ACTIVITY

Description

1,2-Distearoyl-sn-glycero-3-phosphorylcholine-d₇₀ is the deuterium labeled 1,2-Distearoyl-sn-glycero-3-phosphorylcholine. 1,2-Distearoyl-sn-glycero-3-phosphorylcholine (1,2-Distearoyl-sn-glycero-3-PC; DSPC) is a cylindrical-shaped lipid. 1,2-Distearoyl-sn-glycero-3-phosphorylcholine is used to synthesize liposomes, and is the lipid component in the lipid nanoparticle (LNP) system[1][2].

In Vitro

Stable heavy isotopes of hydrogen, carbon, and other elements have been incorporated into drug molecules, largely as tracers for quantitation during the drug development process. Deuteration has gained attention because of its potential to affect the pharmacokinetic and metabolic profiles of drugs^[1].
 MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. *Ann Pharmacother.* 2019;53(2):211-216.

[2]. Andrew D Miller. Delivery of RNAi therapeutics: work in progress. Expert Rev Med Devices. 2013 Nov;10(6):781-811.

[3]. Jayesh A Kulkarni, et al. On the role of helper lipids in lipid nanoparticle formulations of siRNA. Nanoscale. 2019 Nov 21;11(45):21733-21739.

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