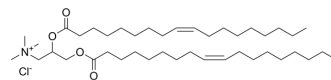


DOTAP chloride

Cat. No.:	HY-112754A
CAS No.:	132172-61-3
Molecular Formula:	C ₄₂ H ₈₀ ClNO ₄
Molecular Weight:	698.54
Target:	Liposome
Pathway:	Metabolic Enzyme/Protease
Storage:	-20°C, protect from light, stored under nitrogen * In solvent : -80°C, 6 months; -20°C, 1 month (protect from light, stored under nitrogen)



SOLVENT & SOLUBILITY

In Vitro

Ethanol : 130 mg/mL (186.10 mM; Need ultrasonic)
DMSO : 25 mg/mL (35.79 mM; ultrasonic and warming and heat to 60°C)

Preparing Stock Solutions	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
	1 mM	1.4316 mL	7.1578 mL	14.3156 mL
	5 mM	0.2863 mL	1.4316 mL	2.8631 mL
	10 mM	0.1432 mL	0.7158 mL	1.4316 mL

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

In Vivo

- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
Solubility: ≥ 2.5 mg/mL (3.58 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
Solubility: 2.5 mg/mL (3.58 mM); Suspended solution; Need ultrasonic
- Add each solvent one by one: 10% DMSO >> 90% corn oil
Solubility: ≥ 2.5 mg/mL (3.58 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

DOTAP chloride is a useful and effective cationic lipid for transient and stable transfection DNA (plasmids, bacmids) and modified nucleic acids (antisense oligonucleotides) with out the use of helper lipid^[1].

IC₅₀ & Target

IC50: Cationic Lipid^[1]

In Vitro

liposomes are reorganized by associating with DNA. The transfection efficiency of DOTAP liposomes is mainly influenced by lipid composition and cell type, but not by size or zeta potential^[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- Adv Healthc Mater. 2022: 2202412.
- Pharmaceutics. 2023 Apr 30, 15(5), 1379.

See more customer validations on www.MedChemExpress.com

REFERENCES

[1]. Kim BK, et al. DOTAP/DOPE ratio and cell type determine transfection efficiency with DOTAP-liposomes. *Biochim Biophys Acta*. 2015 Oct;1848(10 Pt A):1996-2001.

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

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