



N-[1-(2,3-Di(9-octadecenoyloxy)propyl]-N,N,N-trimethylammonium (chloride)

Cat. No.:	OB0626WX-3872
Appearance:	Solid
Purity:	≥98% (mixture of isomers)
Identity:	Confirmed by NMR, TLC, IR, and HPLC.
Size:	10 mg; 25 mg; 50 mg; 100 mg

This product is for research use only and is not intended for diagnostic use.

Product Overview

Description	N-[1-(2,3-Di(9-octadecenoyloxy)propyl]-N,N,N-trimethylammonium is a defined isomeric mixture of high-purity cationic lipids comprising N-[1-(2,3-dioleoyloxy)propyl]-N,N,N-trimethylammonium and N-[1-(2,3-dielaidoyloxy)propyl]-N,N,N-trimethylammonium. This quaternary ammonium formulation presents a permanently positive surface charge, serving as a classical benchmark matrix for achieving high-density electrostatic nucleic acid binding.
Synonyms	N,N,N-trimethyl-2,3-bis(9-octadecen-1-yloxy)-1-propanaminium, monochloride; 104872-42-6; 1,2-di-O-octadecenyl-3-trimethylammonium propane (chloride salt); N,N,N-Trimethyl-2,3-bis(octadec-9-en-1-yloxy)propan-1-aminium chloride; (E)-DO TMA; N-[1-(2,3-Dioleoyloxy)propyl]-N,N,N-trimethylammonium Chloride; 2,3-bis[(E)-octadec-9-enoxy]propyl-trimethyl-ammonium chloride; 2,3-bis[(E)-octadec-9-enoxy]propyl-trimethylazanium chloride
CAS No.	104872-42-6
Compound CID	16730297
Formula	$C_{42}H_{84}NO_2 \cdot Cl$
Formula Weight	670.6

Specification

Solubility in Ethanol	30 mg/mL
Solubility in Other Solvents	PBS: 10 mg/mL



IUPAC Name	2,3-bis[(<i>E</i>)-octadec-9-enoxy]propyl-trimethylazanium chloride
InChI	InChI=1S/C42H84NO2.ClH/c1-6-8-10-12-14-16-18-20-22-24-26-28-30-32-34-36-38-44-41-42(40-43(3,4)5)45-39-37-35-33-31-29-27-25-23-21-19-17-15-13-11-9-7-2;/h20-23,42H,6-19,24-41H2,1-5H3;1H/q+1;/p-1/b22-20-,23-21-;
InChI Key	LDGWQMRUWMSZIU-UHFFFAOYSA-M
Canonical SMILES	<chem>C[N+](C)(C)CC(OCCCCCCCCC=CCCCCCCCC)COCCCCCCCCC=CCCCCCCCC.[Cl-]</chem>
Stability	1 year
Storage	Storage at -20°C.
Applications	N-[1-(2,3-Di(9-octadecenoyloxy)propyl]-N,N,N-trimethylammonium (chloride) serves as a cationic lipid for liposome preparation and lipid-mediated nucleic acid delivery research. It supports membrane interaction studies, formulation optimization, lipid assembly characterization, and evaluation of cationic lipid delivery systems.