

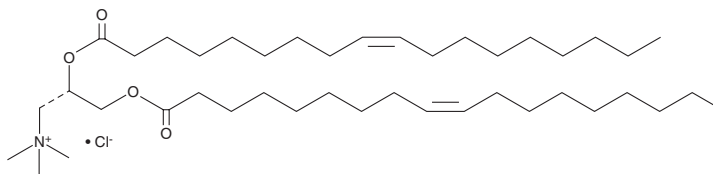
PRODUCT INFORMATION



1,2-Dioleoyl-3(S)-trimethylammoniumpropane (chloride)

Item No. 38195

CAS Registry No.: 428506-51-8
Formal Name: N,N,N-trimethyl-2,3-bis[[[(9Z)-1-oxo-9-octadecen-1-yl]oxy]-1-propanaminium, monochloride
Synonyms: (S)-DOTAP, (S)-N,N,N-Trimethyl-2,3-bis(oleoyloxy)propan-1-aminium
MF: C₄₂H₈₀NO₄ • Cl
FW: 698.5
Purity: ≥95%
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

1,2-Dioleoyl-3(S)-trimethylammoniumpropane (S-DOTAP) (chloride) is supplied as a solid. A stock solution may be made by dissolving the S-DOTAP (chloride) in the solvent of choice, which should be purged with an inert gas. S-DOTAP (chloride) is soluble in the organic solvent ethanol at a concentration of approximately 20 mg/ml. S-DOTAP (chloride) is slightly soluble in DMSO and dimethyl formamide.

Description

S-DOTAP is a cationic lipid and the less immunologically active isomer of DOTAP (Item No. 15110).^{1,2} Lipoplexes containing S-DOTAP and encapsulating siRNA targeting the gene encoding aromatase, CYP19A1, decrease aromatase activity in MCF-7 breast cancer cells.¹ Vaccination with a peptide epitope from human papillomavirus (HPV) 16 protein E7 in S-DOTAP-containing liposomes decrease tumor size but do not induce IFN- γ production by CD8⁺ T cells and tumor-infiltrating lymphocytes (TILs) in a murine cervical cancer model.²

References

1. Terp, M.C., Bauer, F., Sugimoto, Y., *et al.* Differential efficacy of DOTAP enantiomers for siRNA delivery *in vitro*. *Int. J. Pharm.* **430**(1-2), 328-334 (2012).
2. Vasievich, E.A., Chen, W., and Huang, L. Enantiospecific adjuvant activity of cationic lipid DOTAP in cancer vaccine. *Cancer Immunol. Immunother.* **60**(5), 629-638 (2011).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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