

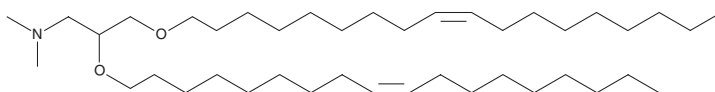
PRODUCT INFORMATION



1,2-Dioleoyloxy-3-dimethylamino-propane

Item No. 15109

CAS Registry No.: 104162-47-2
Formal Name: N,N-dimethyl-2,3-bis[(9Z)-9-octadecen-1-yloxy]-1-propanamine
Synonyms: DODMA, MBN 305A
MF: C₄₁H₈₁NO₂
FW: 620.1
Purity: ≥98%
Supplied as: A solution in ethanol
Storage: -20°C
Stability: ≥2 years



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

Laboratory Procedures

1,2-Dioleoyloxy-3-dimethylamino-propane (DODMA) is supplied as a solution in ethanol. To change the solvent, simply evaporate the ethanol under a gentle stream of nitrogen and immediately add the solvent of choice. DODMA is soluble in the organic solvent dimethyl formamide at a concentration of approximately 12 mg/ml.

Description

DODMA is an ionizable cationic lipid ($pK_a = 6.59$ in a TNS binding assay) that contains the unsaturated long-chain (18:1) oleic acid inserted at both the *sn*-1 and *sn*-2 positions.¹ It has been used in the composition of liposomes formulated as stable nucleic acid lipid particles that can encapsulate siRNA or other small molecules to be used for drug delivery.^{2,3}

References

1. Carrasco, M.J., Alishetta, S., Alameh, M.-G., *et al.* Ionization and structural properties of mRNA lipid nanoparticles influence expression in intramuscular and intravascular administration. *Commun. Biol.* **4**(1), 956 (2021).
2. Fenske, D.B., Chonn, A., and Cullis, P.R. Liposomal nanomedicines: An emerging field. *Toxicol. Pathol.* **36**(1), 21-29 (2008).
3. Heyes, J., Palmer, L., Bremner, K., *et al.* Cationic lipid saturation influences intracellular delivery of encapsulated nucleic acids. *J. Control. Release* **107**(2), 276-287 (2005).

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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CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897
[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM