

PRODUCT INFORMATION



H5T5

Item No. 45538

CAS Registry No.: 3097464-85-9

Formal Name: bis((2E,6E)-3,7,11-trimethyldodeca-2,6,10-trien-1-yl) 3,3'-((3-((3-(dimethylamino)propyl)(3-oxo-3-(((2E,6E)-3,7,11-trimethyldodeca-2,6,10-trien-1-yl)oxy)propyl)amino)propyl)azanediyl) dipropionate

MF: $C_{62}H_{105}N_3O_6$

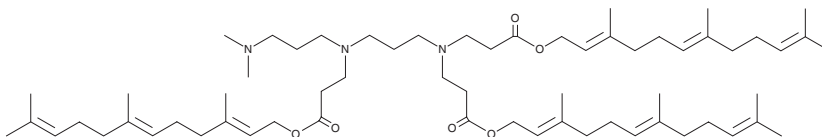
FW: 988.5

Purity: $\geq 95\%$

Supplied as: A 50 mg/ml solution in methyl acetate

Storage: -20°C

Stability: ≥ 2 years



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

Laboratory Procedures

H5T5 is supplied as a solution in methyl acetate. To change the solvent, simply evaporate the methyl acetate under a gentle stream of nitrogen and immediately add the solvent of choice. H5T5 is slightly soluble (0.1-1 mg/ml) in chloroform.

Description

H5T5 is an ionizable cationic lipid that has been used in the generation of lipid nanoparticles (LNPs) for the delivery of mRNA *in vitro* and *in vivo*.¹ LNPs containing H5T5 primarily target the spleen, but also the bone marrow, in mice after intravenous administration. H5T5-containing LNPs encapsulating anti-HER2 chimeric antigen receptor (CAR) mRNA (H5T5 LNP-CAR^{HER2}) generate a diverse population of CAR⁺ immune cells, including T cells, dendritic cells, and natural killer (NK) cells, in mice. H5T5 LNP-CAR^{HER2} also reduce tumor growth in murine CT26 lung metastasis and B16/F10 melanoma models established using human HER2-expressing cells.

Reference

1. Yin, Q., Liang, X., Zhang, C., *et al.* Lipid nanoparticle-mediated *in vivo* generation of panCAR immune cells for solid tumor immunotherapy. *Proc. Natl. Acad. Sci. U S A* **123**(8), e2509698123 (2026).

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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