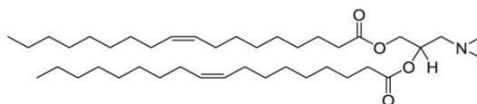


## CERTIFICATE OF ANALYSIS

### DODAP

Cat #: orb1089400



#### Description:

DODAP (1,2-dioleoyl-3-dimethylammonium-propane) is an ionizable cationic lipid with lower cytotoxicity and high transfection efficiency. DODAP is neutral at physiological pH, but acquires a positive charge inside the endosome due to the protonation of free amines when pH is lower than its pKa (<7). The electrostatic interactions between DODAP and naturally occurring anionic lipids in endosomal membranes trigger the release of nucleic acid. These interactions promote membrane lytic non-bilayer structures to enable the intracellular delivery of nucleic acid. A common application is in nanomedicine as an ionizable lipid component of nanocarriers (lipid-polymer hybrid nanoparticles, LPNs), widely used to encapsulate bioactive molecules, including mRNA, siRNA, and plasmid DNA as a treatment for diseases.

#### Chemical Information

Catalog	orb1089400
Lot	H3119
Purity of current batch:	>98%
Molecular Weight (MW)	648.05
Molecular Formula	C41H77NO4
CAS No.	127512-29-2
Solubility (25°C)	DMSO
Storage	Store at -20°C (desiccating conditions).

#### Handling:

Providing storage is as stated on the product vial and the vial is kept tightly sealed, the product can be stored for up to 24 months.

Wherever possible, you should prepare and use solutions on the same day. However, if you need to make up stock solutions in advance, we recommend that you store the solution as aliquots in tightly sealed vials at -20°C. Generally, these will be useable for up to one month. Before use, and prior to opening the vial we recommend that you allow your product to equilibrate to room temperature for at least 1 hour.