

DC60619 | 12T-O14

Instructions for Use

12T-O14 is a amidine-incorporated degradable (AID) lipid for versatile mRNA delivery. 12T-O14-LNPs mediate efficient intramuscular delivery of mRNA vaccines and systemic delivery of mRNA therapeutics without noticeable toxicity. 12T-O14 serves as a superior supplementary lipid to redirect liver-tropic LNPs to selectively target the lung or spleen via simple adjustment of the formulation.

Product information

CAS No.	Not available
Chemical Name	12T-O14
Formula	C37H66N2O2S
M.Wt	603.00
Purity	>98%
Storage	Original product: up to 1 year under the storage conditions stated on the vial, kept tightly sealed. Stock solutions: aliquots at -20°C, generally up to one month.
Shipping condition	Ships from Shanghai. Pure lipid is stable during ice-pack transport.

Formulation & study context

Literature values apply to the cited study only. Administration routes describe research, not clinical instructions.

A complete product-specific formulation has not been verified. No standard ratio is substituted.

N/P ratio	Not reported in the verified record
Cargo	Not available in the verified record
Administration route	Not available in the verified record
Animal model	Not available in the verified record
Formulation process	Not available in the verified record

N/P is a nitrogen-to-phosphate molar ratio. Lipid:cargo mass ratio is a different quantity and must not be used as N/P.

Stock-solution preparation table

Calculated using product-page MW: 603.0 g/mol. Volumes are final solution volumes.

Mass	1 mM	5 mM	10 mM
10 mg	16.584 mL	3.317 mL	1.658 mL
25 mg	41.459 mL	8.292 mL	4.146 mL

Mass	1 mM	5 mM	10 mM
50 mg	82.919 mL	16.584 mL	8.292 mL
100 mg	165.837 mL	33.167 mL	16.584 mL
250 mg	414.594 mL	82.919 mL	41.459 mL

Volume (mL) = mass (mg) × 1000 / [MW (g/mol) × concentration (mM)]. Mathematical conversions only; not measured solubility. Confirm solvent compatibility and the exact material before preparation.

Handling & storage

Provided that storage conditions are as stated on the product vial and the vial is kept tightly sealed, the product can be stored for up to 1 year.

Wherever possible, prepare and use solutions on the same day. If stock solutions must be prepared in advance, store them as aliquots in tightly sealed vials at -20°C. Generally, these will be usable for up to one month.

Before use, and prior to opening the vial, allow the product to equilibrate to room temperature for at least 1 hour.

References

Not available