

DC57002 | LIPID C24

Instructions for Use

C24 is a novel multiprotic ionizable lipid. C24 lipid nanoparticle (LNP) has a multistage protonation behavior resulting in greater endosomal protonation and greater translation compared to the standard reference MC3 LNP. C24 LNP also lower injection site inflammation and higher stability compared to MC3 LNP.

Product information

CAS No.	Not available
Chemical Name	LIPID C24
Formula	C55H109N3O4
M.Wt	875.84
Purity	>95%
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: 875.84 g/mol. Volumes are final solution volumes.

Mass	1 mM	5 mM	10 mM
10 mg	11.418 mL	2.284 mL	1.142 mL
25 mg	28.544 mL	5.709 mL	2.854 mL

Mass	1 mM	5 mM	10 mM
50 mg	57.088 mL	11.418 mL	5.709 mL
100 mg	114.176 mL	22.835 mL	11.418 mL
250 mg	285.440 mL	57.088 mL	28.544 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

Novel lipid nanoparticle provides potent SARS-CoV-2 mRNA vaccine at low dose with low local reactogenicity, high thermostability and limited systemic biodistribution--Research Square