

DC60463 | MIC2

Instructions for Use

MIC2 is a set of multi-charged lipids with four tertiary amino nitrogen atoms (4N4T) which could be constructed and applied to form novel lipid nanoparticles developed by Westgen. 4N4T-LNPs based on MIC2 exhibit much higher mRNA translation efficiency than the approved SM-102-LNPs. 4N4T-LNPs are successfully applied to DS mRNA vaccine and the vaccines worked well against SARS-CoV-2 and its variants, including Delta and Omicron.

Product information

CAS No.	Not available
Chemical Name	MIC2
Formula	C70H142N6O2
M.Wt	1,099.946
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: 1099.946 g/mol. Volumes are final solution volumes.

Mass	1 mM	5 mM	10 mM
10 mg	9.091 mL	1.818 mL	0.909 mL

Mass	1 mM	5 mM	10 mM
25 mg	22.728 mL	4.546 mL	2.273 mL
50 mg	45.457 mL	9.091 mL	4.546 mL
100 mg	90.914 mL	18.183 mL	9.091 mL
250 mg	227.284 mL	45.457 mL	22.728 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