

DC67478 | Lipid C-1

Instructions for Use

Lipid C-1 is an ionizable cationic amino lipid structurally derived from SM-102, optimized for enhanced mRNA delivery. When formulated into LNPs, it demonstrates superior transfection efficiency in Calu-3 cells, driving significantly higher luciferase reporter expression compared to its parent compound.

Product information

CAS No.	Not available
Chemical Name	Lipid C-1
Formula	C40H79NO5
M.Wt	654.070
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: 654.07 g/mol. Volumes are final solution volumes.

Mass	1 mM	5 mM	10 mM
10 mg	15.289 mL	3.058 mL	1.529 mL
25 mg	38.222 mL	7.644 mL	3.822 mL
50 mg	76.444 mL	15.289 mL	7.644 mL

Mass	1 mM	5 mM	10 mM
100 mg	152.889 mL	30.578 mL	15.289 mL
250 mg	382.222 mL	76.444 mL	38.222 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