DC68056 | A1T2C3（CP-LC-1067）

Instructions for Use

A1T2C3 （CP-LC-1067） is a highly potent ionizable lipid designed for lung-targeted mRNA delivery. When formulated into lipid nanoparticles (LNPs), it produces particles approximately 80 nm in size with excellent uniformity and a high mRNA encapsulation efficiency (>94%). Its most distinguished feature is its exceptional organ selectivity. Following intravenous administration in mice, A1T2C3-based LNPs demonstrated a remarkable accumulation of over 94% of the signal in the lungs, with minimal distribution to other major organs. This makes it a leading candidate for developing therapeutics specifically targeted to pulmonary tissues.

Product information

CAS No.	Not available
Chemical Name	A1T2C3（CP-LC-1067）
Formula	C54H103N3O8S3
M.Wt	1,018.61
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: 1018.61 g/mol. Volumes are final solution volumes.

Mass	1 mM	5 mM	10 mM
10 mg	9.817 mL	1.963 mL	0.982 mL
25 mg	24.543 mL	4.909 mL	2.454 mL
50 mg	49.087 mL	9.817 mL	4.909 mL
100 mg	98.173 mL	19.635 mL	9.817 mL
250 mg	245.433 mL	49.087 mL	24.543 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