

DC67452 | Lipid PPz-2R1

Instructions for Use

PPz-2R1 is an ionizable cationic lipid engineered for mRNA delivery via lipid nanoparticles (LNPs). These LNPs demonstrate remarkable lung-selective accumulation in mice, showing significantly higher uptake compared to heart, liver, spleen, and kidney tissues. When loaded with PTEN mRNA, PPz-2R1 LNPs effectively restore tumor suppressor function in PTEN-deficient lung cancer cells and inhibit tumor progression in orthotopic models, with enhanced efficacy observed in combination with PD-1 blockade therapy.

Product information

CAS No.	Not available
Chemical Name	Lipid PPz-2R1
Formula	C48H94N2O4
M.Wt	763.3
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: 763.3 g/mol. Volumes are final solution volumes.

Mass	1 mM	5 mM	10 mM
10 mg	13.101 mL	2.620 mL	1.310 mL

Mass	1 mM	5 mM	10 mM
25 mg	32.753 mL	6.551 mL	3.275 mL
50 mg	65.505 mL	13.101 mL	6.551 mL
100 mg	131.010 mL	26.202 mL	13.101 mL
250 mg	327.525 mL	65.505 mL	32.753 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