

DC67461 | 2N12B

Instructions for Use

2N12B is a redox-responsive cationic lipid ($pK_a = 6.5$) designed for siRNA delivery. Its LNPs mediate robust VEGFA knockdown in both cultured retinal cells and ex vivo mouse retina, while functionally impairing HUVEC motility. When administered in retinopathy models, the nanoparticles alleviate disease hallmarks including abnormal vessel growth and retinal vascular leakage.

Product information

CAS No.	Not available
Chemical Name	2N12B
Formula	C ₅₁ H ₉₇ N ₃ O ₈ S ₃
M.Wt	976.5
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: 976.5 g/mol. Volumes are final solution volumes.

Mass	1 mM	5 mM	10 mM
10 mg	10.241 mL	2.048 mL	1.024 mL
25 mg	25.602 mL	5.120 mL	2.560 mL

Mass	1 mM	5 mM	10 mM
50 mg	51.203 mL	10.241 mL	5.120 mL
100 mg	102.407 mL	20.481 mL	10.241 mL
250 mg	256.016 mL	51.203 mL	25.602 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