

DC67456 | Lipid U 105

Instructions for Use

Lipid U 105 is an ionizable cationic lipid (pKa 6.65) specifically designed for circular RNA delivery via LNPs. These formulations effectively enhance VEGF-A expression in HUVECs, promoting endothelial cell proliferation and migration. When applied topically in diabetic mouse models, the VEGF-A-encoding circular RNA LNPs significantly accelerate wound healing, demonstrating therapeutic potential for impaired tissue repair.

Product information

CAS No.	Not available
Chemical Name	Lipid U 105
Formula	C53H106N2O6
M.Wt	867.4
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: 867.4 g/mol. Volumes are final solution volumes.

Mass	1 mM	5 mM	10 mM
10 mg	11.529 mL	2.306 mL	1.153 mL

Mass	1 mM	5 mM	10 mM
25 mg	28.822 mL	5.764 mL	2.882 mL
50 mg	57.644 mL	11.529 mL	5.764 mL
100 mg	115.287 mL	23.057 mL	11.529 mL
250 mg	288.218 mL	57.644 mL	28.822 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