

DC67994 | 244-9-cis

Instructions for Use

244-9-cis is a novel ionizable lipid disclosed in United States Patent US 2026/0014075 A1, specifically engineered for advanced lipid nanoparticle (LNP) delivery systems. Its distinctive molecular architecture features biodegradable ester bonds, which contribute to excellent physicochemical properties such as a near-neutral surface charge (approximately -3 mV) for improved biocompatibility, an optimal pKa of about 6.2 to facilitate endosomal escape, and consistently high nucleic acid encapsulation efficiency exceeding 90%. In vivo studies confirm significantly enhanced delivery to hepatocytes and markedly higher therapeutic protein expression compared to control formulations, positioning 244-9-cis as a promising candidate for next-generation genetic medicines.

Product information

CAS No.	Not available
Chemical Name	244-9-cis
Formula	C60H111O6N3
M.Wt	970.56
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: 970.56 g/mol. Volumes are final solution volumes.

Mass	1 mM	5 mM	10 mM
10 mg	10.303 mL	2.061 mL	1.030 mL
25 mg	25.758 mL	5.152 mL	2.576 mL
50 mg	51.517 mL	10.303 mL	5.152 mL
100 mg	103.033 mL	20.607 mL	10.303 mL
250 mg	257.583 mL	51.517 mL	25.758 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