

DC60965 | Ionizable lipid-2 (ALC-0315 analogue)

Instructions for Use

Ionizable lipid-2 is a cationic lipid for nucleic acid delivery, with the ability to form lipid nanoparticle mRNA vaccines that exhibit in vitro stability and immunostimulatory activity. This ALC-0315 analogue retains its ionizable tertiary amine, hydroxybutyl headgroup, and dual branched hydrophobic tails, while replacing the two ester linkages with carbonate groups. This modification may alter hydrolytic stability, biodegradability, membrane interactions, and overall LNP delivery performance.

Product information

CAS No.	Not available
Chemical Name	Ionizable lipid-2 (ALC-0315 analogue)
Formula	C50H99NO7
M.Wt	826.323577165604
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: 826.323577165604 g/mol. Volumes are final solution volumes.

Mass	1 mM	5 mM	10 mM
10 mg	12.102 mL	2.420 mL	1.210 mL
25 mg	30.254 mL	6.051 mL	3.025 mL
50 mg	60.509 mL	12.102 mL	6.051 mL
100 mg	121.018 mL	24.204 mL	12.102 mL
250 mg	302.545 mL	60.509 mL	30.254 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