

DC65329 | ALC-0315 analogue-2

Instructions for Use

ALC-0315 analogue-2 is an analogue of ALC-0315. ALC-0315 is an ionisable aminolipid that is responsible for mRNA compaction and aids mRNA cellular delivery and its cytoplasmic release through suspected endosomal destabilization. ALC-0315 can be used to form lipid nanoparticle (LNP) delivery vehicles. Lipid-Nanoparticles have been used in the research of mRNA COVID-19 vaccine.

Product information

CAS No.	Not available
Chemical Name	ALC-0315 analogue-2
Formula	C ₄₈ H ₉₅ NO ₆
M.Wt	782.27
Purity	ELSD-HPLC>95%
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: 782.27 g/mol. Volumes are final solution volumes.

Mass	1 mM	5 mM	10 mM
10 mg	12.783 mL	2.557 mL	1.278 mL
25 mg	31.958 mL	6.392 mL	3.196 mL

Mass	1 mM	5 mM	10 mM
50 mg	63.917 mL	12.783 mL	6.392 mL
100 mg	127.833 mL	25.567 mL	12.783 mL
250 mg	319.583 mL	63.917 mL	31.958 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

[1]. WO2022213895A1