

DC65178 | AL-A12

Instructions for Use

AL-A12 is an ionizable cationic amino lipid that has been used in the formation of lipid nanoparticles (LNPs).¹ LNPs containing AL-A12 and encapsulating minicircle DNA that encodes for GFP have been used to induce GFP expression in Huh7 cells.

Product information

CAS No.	Not available
Chemical Name	AL-A12
Formula	C ₂₈ H ₅₉ NO
M.Wt	425.77
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: 425.77 g/mol. Volumes are final solution volumes.

Mass	1 mM	5 mM	10 mM
10 mg	23.487 mL	4.697 mL	2.349 mL
25 mg	58.717 mL	11.743 mL	5.872 mL
50 mg	117.434 mL	23.487 mL	11.743 mL

Mass	1 mM	5 mM	10 mM
100 mg	234.869 mL	46.974 mL	23.487 mL
250 mg	587.171 mL	117.434 mL	58.717 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