

DC12381 | DLin-KC2-DMA

Instructions for Use

DLin-KC2-DMA is a highly potent ionizable lipid used in the formulation of lipid nanoparticles (LNPs) for the delivery of siRNA. It represents a significant advancement over earlier generations of lipids, such as DLin-DMA, due to its dramatically improved gene silencing efficiency.

Product information

CAS No.	Not available
Chemical Name	DLin-KC2-DMA
Formula	C43H79NO2
M.Wt	642.092873811722
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: 642.092873811722 g/mol. Volumes are final solution volumes.

Mass	1 mM	5 mM	10 mM
10 mg	15.574 mL	3.115 mL	1.557 mL
25 mg	38.935 mL	7.787 mL	3.894 mL
50 mg	77.870 mL	15.574 mL	7.787 mL

Mass	1 mM	5 mM	10 mM
100 mg	155.741 mL	31.148 mL	15.574 mL
250 mg	389.352 mL	77.870 mL	38.935 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