

DC59217 | Arcturus lipid 2(ATX-0114)

Instructions for Use

Lipid 2,2(8,8) 4C CH₃ is an ionizable cationic lipid (pK_a = 6.69).¹ It has been used in the generation of lipid nanoparticles (LNPs) for the delivery of siRNA in vivo. LNPs containing lipid 2,2(8,8) 4C CH₃ and encapsulating siRNA targeting Factor VII decrease plasma Factor VII protein levels by 90% in mice.

Product information

CAS No.	Not available
Chemical Name	Arcturus lipid 2(ATX-0114)
Formula	C ₃₇ H ₇₀ N ₂ O ₅ S
M.Wt	654.50
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: 654.5 g/mol. Volumes are final solution volumes.

Mass	1 mM	5 mM	10 mM
10 mg	15.279 mL	3.056 mL	1.528 mL
25 mg	38.197 mL	7.639 mL	3.820 mL
50 mg	76.394 mL	15.279 mL	7.639 mL

Mass	1 mM	5 mM	10 mM
100 mg	152.788 mL	30.558 mL	15.279 mL
250 mg	381.971 mL	76.394 mL	38.197 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

Payne, J. E. & Chivukula P. Ionizable Cationic Lipid for RNA Delivery.
<https://patents.google.com/patent/US9670152B2/en>.