DC59010 | C14-4

Instructions for Use

C14-4 is an ionizable lipid studied for mRNA transfection of T cells and ex vivo CAR-T cell engineering. Consult the cited publication for the formulation and assay conditions used in each study.

Product information

CAS No.	Not available
Chemical Name	C14-4
Formula	C84H173N5O7
M.Wt	1,365.30
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: 1365.3 g/mol. Volumes are final solution volumes.

Mass	1 mM	5 mM	10 mM
10 mg	7.324 mL	1.465 mL	0.732 mL
25 mg	18.311 mL	3.662 mL	1.831 mL
50 mg	36.622 mL	7.324 mL	3.662 mL

Mass	1 mM	5 mM	10 mM
100 mg	73.244 mL	14.649 mL	7.324 mL
250 mg	183.110 mL	36.622 mL	18.311 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

Ionizable Lipid Nanoparticle-Mediated mRNA Delivery for Human
CAR T Cell Engineering
Margaret M. Billingsley, Nathan Singh, Pranali Ravikumar, Rui Zhang, Carl H. June,
and Michael J. Mitchell*