DC60825 | lipid 11-10-8

Instructions for Use

11-10-8 is an ionizable cationic lipid (pKa = 6.22) that has been used in the generation of lipid nanoparticles (LNPs) for mRNA delivery in vivo.1 LNPs containing 11-10-8 and encapsulating mRNA encoding the Cas9 nuclease and small-guide RNA (sgRNA) targeting transthyretin (TTR), a thyroid hormone carrier protein, decrease serum levels of TTR in mice. LNPs containing 11-10-8 and encapsulating mRNA encoding human fibroblast growth factor 21 (hFGF21) increase serum levels of hFGF21, decrease body and liver weights, and reduce the liver steatosis score in a mouse model of obesity induced by a high-fat diet.

Product information

CAS No.	Not available
Chemical Name	lipid 11-10-8
Formula	C42H82N2O4
M.Wt	679.1
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: 679.1 g/mol. Volumes are final solution volumes.

Mass	1 mM	5 mM	10 mM
10 mg	14.725 mL	2.945 mL	1.473 mL
25 mg	36.813 mL	7.363 mL	3.681 mL
50 mg	73.627 mL	14.725 mL	7.363 mL
100 mg	147.254 mL	29.451 mL	14.725 mL
250 mg	368.134 mL	73.627 mL	36.813 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