

DC86805 | Lipid 23

Instructions for Use

Lipid 23 is an ionizable cationic amino lipid ($pK_a = 5.7$) that has been used with other lipids in the formulation of lipid nanoparticles (LNPs). Intravenous administration of LNPs containing lipid 23 and encapsulating an mRNA reporter accumulate specifically in the mouse liver.

Product information

CAS No.	Not available
Chemical Name	Lipid 23
Formula	C55H108N2O6
M.Wt	893.5
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: 893.5 g/mol. Volumes are final solution volumes.

Mass	1 mM	5 mM	10 mM
10 mg	11.192 mL	2.238 mL	1.119 mL
25 mg	27.980 mL	5.596 mL	2.798 mL
50 mg	55.960 mL	11.192 mL	5.596 mL

Mass	1 mM	5 mM	10 mM
100 mg	111.919 mL	22.384 mL	11.192 mL
250 mg	279.799 mL	55.960 mL	27.980 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

1. Naidu, G.S., Yong, S.-B., Ramishetti, S., et al. A combinatorial library of lipid nanoparticles for cell type-specific mRNA delivery. Adv. Sci. (Weinh) 10(19), e2301929 (2023).