

DC67552 | MeTis Lipid 5

Instructions for Use

MeTis Lipid 5 is an ionizable lipid featuring a pyrazole-based headgroup and biodegradable C8-ester twin tails developed by MeTis Pharmaceuticals (Patent CN118290339B). It demonstrated breakthrough in vivo efficacy (7.08E+10 photons, luciferase assay), surpassing MC3 lipid by 8.8-fold in systemic mRNA delivery. The molecule achieves optimal safety-profile (96.4% cell viability) and encapsulation efficiency (96.4%), forming LNPs of 108.9 nm (PDI 0.17) at N/P 6. Its ester-enabled rapid metabolism and balanced hydrophobicity position lipid 5 as a candidate for next-gen mRNA therapeutics.

Product information

CAS No.	Not available
Chemical Name	MeTis Lipid 5
Formula	C45H89NO5
M.Wt	870.36
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: 870.36 g/mol. Volumes are final solution volumes.

Mass	1 mM	5 mM	10 mM
10 mg	11.489 mL	2.298 mL	1.149 mL

Mass	1 mM	5 mM	10 mM
25 mg	28.724 mL	5.745 mL	2.872 mL
50 mg	57.447 mL	11.489 mL	5.745 mL
100 mg	114.895 mL	22.979 mL	11.489 mL
250 mg	287.237 mL	57.447 mL	28.724 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