

DC60671 | THP1

Instructions for Use

THP1 is a tetrahydropyrimidine ionizable lipid for mRNA delivery. THP1 demonstrates higher transfection efficiency comparable to DLin-MC3-DMA (MC3). THP1 LNPs also demonstrates the ability to edit genes in specific liver tissues in a tdTomato transgenic mouse model.

Product information

CAS No.	Not available
Chemical Name	THP1
Formula	C ₂₆ H ₄₈ N ₂ O ₄
M.Wt	452.68
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: 452.68 g/mol. Volumes are final solution volumes.

Mass	1 mM	5 mM	10 mM
10 mg	22.091 mL	4.418 mL	2.209 mL
25 mg	55.227 mL	11.045 mL	5.523 mL
50 mg	110.453 mL	22.091 mL	11.045 mL

Mass	1 mM	5 mM	10 mM
100 mg	220.907 mL	44.181 mL	22.091 mL
250 mg	552.267 mL	110.453 mL	55.227 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