

DC67241 | 4-O10b1

Instructions for Use

4-O10b1 is an ionizable lipid used to generate lipid nanoparticles (LNPs) for delivering RNA to cells. LNPs comprised of 4-O10b1 and conjugated with the macrophage antibody F4/80 were able to delivery siRNA targeting TAK1 to RAW264.7 cells resulting in suppressed activation of NF-kB. Intranasal administration reduced lung injury in an influenza mouse model.

Product information

CAS No.	Not available
Chemical Name	4-O10b1
Formula	C62H120N4O8
M.Wt	1,049.66
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: 1049.66 g/mol. Volumes are final solution volumes.

Mass	1 mM	5 mM	10 mM
10 mg	9.527 mL	1.905 mL	0.953 mL
25 mg	23.817 mL	4.763 mL	2.382 mL

Mass	1 mM	5 mM	10 mM
50 mg	47.634 mL	9.527 mL	4.763 mL
100 mg	95.269 mL	19.054 mL	9.527 mL
250 mg	238.172 mL	47.634 mL	23.817 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