

DC65348 | DOG-IM4

Instructions for Use

DOG-IM4 is an ionizable cationic lipid (apparent pKa = 5.6) that has been used in the generation of lipid nanoparticles (LNPs) for the delivery of mRNA.¹ Immunization with LNPs containing DOG-IM4 and encapsulating mRNA encoding influenza A hemagglutinin (HA) increases HA-inhibiting antibody titers (HI titers) in mice and cynomolgus macaques.

Product information

CAS No.	Not available
Chemical Name	DOG-IM4
Formula	C51H95N3O7
M.Wt	862.3
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: 862.3 g/mol. Volumes are final solution volumes.

Mass	1 mM	5 mM	10 mM
10 mg	11.597 mL	2.319 mL	1.160 mL
25 mg	28.992 mL	5.798 mL	2.899 mL

Mass	1 mM	5 mM	10 mM
50 mg	57.984 mL	11.597 mL	5.798 mL
100 mg	115.969 mL	23.194 mL	11.597 mL
250 mg	289.922 mL	57.984 mL	28.992 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