

DC82301 | IC-8(lipid MIC5)

Instructions for Use

IC8 is an ionizable cationic lipid. It has been used in combination with other lipids for the formation of lipid nanoparticles (LNPs). Immunization with severe acute respiratory coronavirus 2 (SARS-CoV-2) spike glycoprotein mRNA in IC8- and manganese-containing LNPs induces IgG responses to SARS-CoV-2 Delta and Omicron variants in mice.¹ Administration of mRNA encoding B7-H3 X CD3 bispecific T cell engaging (BiTE) antibodies in IC8-containing LNPs reduces tumor growth in MV4-11 and A375 mouse xenograft models.

Product information

CAS No.	Not available
Chemical Name	IC-8(lipid MIC5)
Formula	C66H136N4O4
M.Wt	1,049.8
Purity	ELSD-HPLC>95%
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: 1049.8 g/mol. Volumes are final solution volumes.

Mass	1 mM	5 mM	10 mM
10 mg	9.526 mL	1.905 mL	0.953 mL

Mass	1 mM	5 mM	10 mM
25 mg	23.814 mL	4.763 mL	2.381 mL
50 mg	47.628 mL	9.526 mL	4.763 mL
100 mg	95.256 mL	19.051 mL	9.526 mL
250 mg	238.141 mL	47.628 mL	23.814 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. Fan, N., Chen, K., Zhu, R., et al. Manganese-coordinated mRNA vaccines with enhanced mRNA expression and immunogenicity induce robust immune responses against SARS-CoV-2 variants. Sci. Adv. 8(51), eabq3500 (2022).
2. Huang, C., Duan, X., Wang, J., et al. Lipid nanoparticle delivery system for mRNA encoding B7H3-redirected bispecific antibody displays potent antitumor effects on malignant tumors. Adv. Sci. (Weinh)