# DC67216 | Moderna Lipid 26（Lipid M）

## Instructions for Use

Moderna Lipid 26（Lipid M） is an ionizable cationic lipid (pKa = 6.75) that has been used in the generation of lipid nanoparticles (LNPs) for mRNA delivery in vivo. LNPs containing lipid M and encapsulating mRNA encoding influenza virus genes increase anti-influenza virus IgG titers in cynomolgus monkeys without inducing local edema, erythema, or systemic levels of IL-6.

## Product information

| | |
|---|---|
| CAS No. | Not available |
| Chemical Name | Moderna Lipid 26（Lipid M） |
| Formula | C40H79NO5 |
| M.Wt | 654.0590 |
| 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: 654.059 g/mol. Volumes are final solution volumes.

| Mass | 1 mM | 5 mM | 10 mM |
|---|---|---|---|
| 10 mg | 15.289 mL | 3.058 mL | 1.529 mL |
| 25 mg | 38.223 mL | 7.645 mL | 3.822 mL |

| Mass | 1 mM | 5 mM | 10 mM |
|---|---|---|---|
| 50 mg | 76.446 mL | 15.289 mL | 7.645 mL |
| 100 mg | 152.891 mL | 30.578 mL | 15.289 mL |
| 250 mg | 382.229 mL | 76.446 mL | 38.223 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

Hassett, K.J., Benenato, K.E., Jacquinet, E., et al. Optimization of lipid nanoparticles for intramuscular administration of mRNA vaccines. Mol. Ther. Nucleic Acids 15, 1-11 (2019).