

DC68020 | Lipid OC7

Instructions for Use

Lipid OC7, as described in the patent WO2022207938A1, is a novel ionizable lipid that serves as the core functional component of the saNppa-LNP delivery system. Its key innovation lies in its unique biodegradable structure featuring an internal ester bond. Under typical physiological conditions, this bond hydrolyzes, triggering a charge shift from a cationic form that complexes nucleic acids to a zwitterionic form that releases them. This property is central to its role in enabling long-acting self-amplifying RNA (saRNA) therapies. Specifically, OC7 facilitates immune stealth by mitigating early interferon responses, supports sustained and efficient intracellular replication of saRNA even at low doses, and enables therapeutic protein expression that persists for over 28 days from a single administration. This combination of efficient delivery, controlled release, and extended duration of action makes OC7-based LNPs a promising platform for long-term treatments, such as for myocardial infarction, as demonstrated in the referenced research.

Product information

CAS No.	Not available
Chemical Name	Lipid OC7
Formula	Not available
M.Wt	Not available
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: not available g/mol. Volumes are final solution volumes.

Mass	1 mM	5 mM	10 mM
10 mg	MW unavailable	MW unavailable	MW unavailable
25 mg	MW unavailable	MW unavailable	MW unavailable
50 mg	MW unavailable	MW unavailable	MW unavailable
100 mg	MW unavailable	MW unavailable	MW unavailable
250 mg	MW unavailable	MW unavailable	MW unavailable

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