

DC65434 | SM102 Analog 1

Instructions for Use

An analog of SM-102. The ethanolamine amino lipid head enhances encapsulation of mRNA. The lipid has primary esters at C7 position relative to the amine nitrogen. The primary lipid tail has 8 carbon tail. The lipid can be used for mRNA-based therapies which depends on the availability of a safe and efficient delivery vehicle.

Product information

CAS No.	Not available
Chemical Name	SM102 Analog 1
Formula	C52H103NO5
M.Wt	822.4
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: 822.4 g/mol. Volumes are final solution volumes.

Mass	1 mM	5 mM	10 mM
10 mg	12.160 mL	2.432 mL	1.216 mL
25 mg	30.399 mL	6.080 mL	3.040 mL

Mass	1 mM	5 mM	10 mM
50 mg	60.798 mL	12.160 mL	6.080 mL
100 mg	121.595 mL	24.319 mL	12.160 mL
250 mg	303.988 mL	60.798 mL	30.399 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