

DC41043 | NT1-O12B

Instructions for Use

NT1-O12B, an endogenous chemical and a neurotransmitter-derived lipidoid (NT-lipidoid), is an effective carrier for enhanced brain delivery of several blood-brain barrier (BBB)-impermeable cargos. Doping NT1-O12B into BBB-impermeable lipid nanoparticles (LNPs) gives the LNPs the ability to cross the BBB. NT-lipidoids formulation not only facilitate cargo crossing of the BBB, but also delivery of the cargo into neuronal cells for functional gene silencing or gene recombination.

Product information

CAS No.	Not available
Chemical Name	NT1-O12B
Formula	C36H60N2O4S4
M.Wt	713.13
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: 713.13 g/mol. Volumes are final solution volumes.

Mass	1 mM	5 mM	10 mM
10 mg	14.023 mL	2.805 mL	1.402 mL

Mass	1 mM	5 mM	10 mM
25 mg	35.057 mL	7.011 mL	3.506 mL
50 mg	70.113 mL	14.023 mL	7.011 mL
100 mg	140.227 mL	28.045 mL	14.023 mL
250 mg	350.567 mL	70.113 mL	35.057 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