

DC68150 | Lipid A10

Instructions for Use

A10 (Compound 16) is a diketopiperazine-based ionizable lipid disclosed in WO 2025/217298 A1 (PCT/US2025/023899) developed by NAVA Therapeutics that enables potent, cell-selective in vivo delivery of mRNA and nucleic acids without targeting ligands. It forms stable, well-tolerated lipid nanoparticles (LNPs) that preferentially transfect hematopoietic stem cells (HSCs), bone marrow progenitors, lung epithelium, endothelium, and immune cells while minimizing liver off-target delivery. In both mice and non-human primates, A10-containing LNPs drive functional mRNA expression and gene editing in CD34⁺ HSCs at clinically relevant low doses (0.25–1.0 mg/kg), supporting in vivo HSC gene therapy without ex vivo manipulation.

Product information

CAS No.	Not available
Chemical Name	Lipid A10
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

WO 2025/217298 A1 (PCT/US2025/023899)