

DC60477 | Lipid Catechol

Instructions for Use

Lipid catechol is a lipid that contains an α -aminophosphonate group, two 14-carbon acyl chains, and a catechol ring that forms a covalent bond with boronic acid-containing compounds to form lipid prodrug nanoassemblies (LPNA).¹ LPNAs composed of lipid catechol conjugated to phenylboronic acid-modified ciprofloxacin (CIP-PBA) inhibit the formation of, and disrupt preformed, *S. aureus* biofilms and eradicate staphylococci in a mouse model of peritoneal *S. aureus* infection. LPNAs composed of lipid catechol conjugated to bortezomib (BTZ) reduce tumor growth and increase survival in a 4T1 murine mammary carcinoma model.

Product information

CAS No.	Not available
Chemical Name	Lipid Catechol
Formula	C41H79N2O5P
M.Wt	711.1
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: 711.1 g/mol. Volumes are final solution volumes.

Mass	1 mM	5 mM	10 mM
10 mg	14.063 mL	2.813 mL	1.406 mL
25 mg	35.157 mL	7.031 mL	3.516 mL
50 mg	70.314 mL	14.063 mL	7.031 mL
100 mg	140.627 mL	28.125 mL	14.063 mL
250 mg	351.568 mL	70.314 mL	35.157 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