

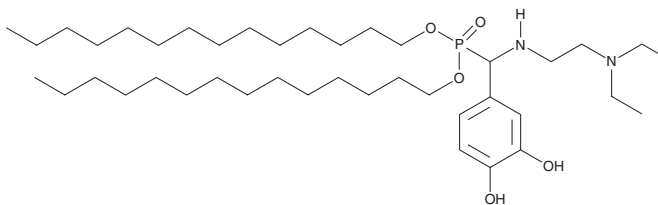
PRODUCT INFORMATION



Lipid Catechol

Item No. 38665

CAS Registry No.: 2930813-52-6
Formal Name: ditetradecyl (((2-(diethylamino)ethyl)amino)(3,4-dihydroxyphenyl)methyl)phosphonate
MF: C₄₁H₇₉N₂O₅P
FW: 711.1
Purity: ≥95%
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Lipid catechol is supplied as a solid. A stock solution may be made by dissolving the lipid catechol in the solvent of choice, which should be purged with an inert gas. Lipid catechol is soluble in organic solvents such as ethanol and DMSO. The solubility of lipid catechol in these solvents is approximately 1 mg/ml.

Description

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.

Reference

1. Ding, Y., Hu, X., Piao, Y., *et al.* Lipid prodrug nanoassemblies via dynamic covalent boronates. *ACS Nano* **17**(7), 6601-6614 (2023).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 10/20/2025

CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897

[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM