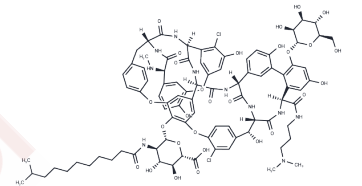


Dalbavancin hydrochloride

Chemical Properties

CAS No. :	2227366-51-8
Formula:	C ₈₈ H ₁₀₁ Cl ₃ N ₁₀ O ₂₈
Molecular Weight:	1853.15
Storage:	Keep away from moisture Powder: -20°C for 3 years In solvent: -80°C for 1 year <small>Actual storage temperature shall be subject to the COA.</small>



Biological Description

Description	Dalbavancin hydrochloride (MDL-63397 hydrochloride) is a semi-synthetic lipopeptide antibiotic that inhibits bacterial cell wall synthesis and exhibits potent bactericidal activity against Gram-positive bacteria. The MIC ₉₀ values of dalbavancin hydrochloride against Staphylococcus aureus and Bacillus anthracis are 0.06 µg/mL and 0.25 µg/mL, respectively.
Targets(IC50)	Others,Antibacterial,Antibiotic
In vitro	Methods: Thirty strains of B. anthracis were selected and incubated with Dalbavancin hydrochloride at concentrations ranging from 0.03 to 64 µg/ml for 18–24 hours; the MIC was determined using the microdilution broth method. Results: The MIC range for Dalbavancin hydrochloride was ≤0.03–0.5 µg/ml; MIC ₅₀ = 0.06 µg/ml; MIC ₉₀ = 0.25 µg/ml.[1]
In vivo	Methods: To investigate the efficacy of Dalbavancin hydrochloride, female BALB/c mice were exposed to an aerosol challenge with Bacillus anthracis strain Ames. Twenty-four hours after infection, intraperitoneal injections of Dalbavancin hydrochloride (15–120 mg/kg) were administered daily for 14 days, and mouse survival rates were assessed 42 days later. Results: The survival rate of mice in the Dalbavancin hydrochloride treatment group was 80–100%. [1] Methods: To investigate the pharmacokinetics of repeated doses of Dalbavancin hydrochloride, SD rats were used. Dalbavancin hydrochloride (40 mg/kg) was administered intravenously once daily for 28 consecutive days. Blood samples were collected at the same time points as for the single-dose study following the final administration. Results: Compared with Day 1, the AUC(0–∞) on Day 28 increased 2–6-fold, indicating accumulation of Dalbavancin hydrochloride.

Solubility Information

Solubility	DMSO: 200 mg/mL (107.92 mM),Sonication is recommended. H ₂ O: 40 mg/mL (21.58 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	0.5396 mL	2.6981 mL	5.3962 mL
5 mM	0.1079 mL	0.5396 mL	1.0792 mL
10 mM	0.054 mL	0.2698 mL	0.5396 mL
50 mM	0.0108 mL	0.054 mL	0.1079 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Heine HS, Purcell BK, Bassett J, Miller L, Goldstein BP. Activity of dalbavancin against *Bacillus anthracis* in vitro and in a mouse inhalation anthrax model. *Antimicrob Agents Chemother.* 2010;54(3):991-996.

Zhu D, Ping L, Hong Y, Shen J, Weng Q, He Q. Simultaneous Quantification and Pharmacokinetic Study of Five Homologs of Dalbavancin in Rat Plasma Using UHPLC-MS/MS. *Molecules.* 2020;25(18):4100. Published 2020 Sep 8.

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