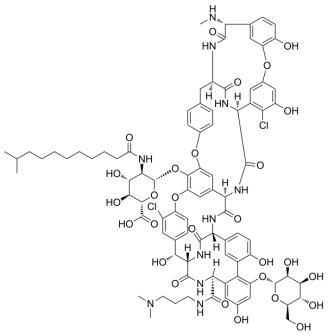
Dalbavancin

Cat. No.:	HY-17586A
CAS No.:	171500-79-1
Molecular Formula:	$C_{88}H_{100}Cl_2N_{10}O_{28}$
Molecular Weight:	1816.69
Target:	Bacterial; Antibiotic
Pathway:	Anti-infection
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Dalbavancin (MDL-63397) is a semisynthetic lipoglycopeptide antibiotic with potent bactericidal activity against Gram-positive bacteria. Dalbavancin inhibits ***Staphylococcus aureus*** and ***Bacillus anthracis*** with MIC_{90}s of 0.06 μg/mL and 0.25 μg/mL, respectively[1][2].
IC_{50} & Target	Glycopeptide
In Vitro	Dalbavancin is a parenterally administered semisynthetic lipoglycopeptide developed to combat infections caused by resistant gram-positive pathogens. Dalbavancin exhibits potent in vitro bactericidal activity against gram-positive pathogens including S. aureus (MRSA), VISA, and non-VanA strains of VRE. Dalbavancin is developed for the treatment of complicated skin and skin structure infections (cSSSIs), predominantly those caused by MRSA and β-hemolytic streptococci, organisms against which it has shown greater potency than existing glycopeptide therapeutic agents[1][2]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	Dalbavancin (15-240 mg/kg; intraperitoneal injection; every 36 h or 72 h; for 14 days; female BALB/c mice) treatment has a survival rate of 80% to 100% of mice with all dose regimens[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Female BALB/c mice (6-8 weeks) challenged with Ames strain of B. anthracis[1]
Dosage:	15 mg/kg, 30 mg/kg, 60 mg/kg, 120 mg/kg, 240 mg/kg
Administration:	Intraperitoneal injection; every 36 h or 72 h; for 14 days
Result:	The efficacy was 80 to 100%, as determined by the rate of survival at 42 days, when treatment was initiated 24 h postchallenge with regimens of 15 to 120 mg/kg every 36 h or 30 to 240 mg/kg every 72 h.

CUSTOMER VALIDATION

- Cell Res. 2021 Jan;31(1):17-24.

- Sci Rep. 2022 Sep 26;12(1):16001.
- Antivir Res. 2020 Jun;178:104786.
- The Journal of Antibiotics . 2019 Feb;72(2):114-117.
- Enferm Infec Micr Cl. 30 July 2022.

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REFERENCES

[1]. Heine HS, et al. Activity of dalbavancin against Bacillus anthracis in vitro and in a mouse inhalation anthrax model. Antimicrob Agents Chemother. 2010 Mar;54(3):991-6.

[2]. Bennett JW, et al. Dalbavancin in the treatment of complicated skin and soft-tissue infections: a review. Ther Clin Risk Manag. 2008 Feb;4(1):31-40.

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