

# Vancomycin

Catalog No: tcsc3242



## Available Sizes

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**Size:** 250mg

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## Specifications

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**CAS No:**

1404-90-6

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**Formula:**

$C_{66}H_{75}Cl_2N_9O_{24}$

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**Pathway:**

Anti-infection

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**Target:**

Bacterial

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**Purity / Grade:**

>98%

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**Solubility:**

10 mM in DMSO

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**Observed Molecular Weight:**

1449.25

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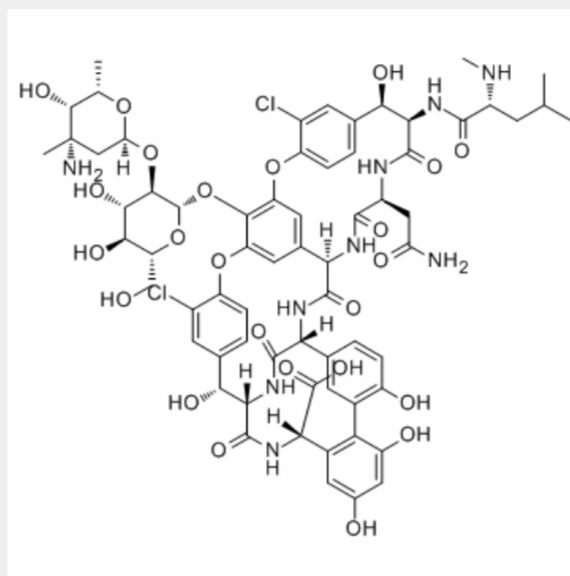
## Product Description

Vancomycin is an antibiotic for the treatment of bacterial infections.

**In Vitro:** Vancomycin is a large glycopeptide compound with a molecular weight of 1450 Da<sup>[1]</sup>. Vancomycin is a unique glycopeptide structurally unrelated to any currently available antibiotic. It also has a unique mode of action inhibiting the second stage of cell wall synthesis of susceptible bacteria. Vancomycin is active against a large number of species of Gram-positive bacteria, such as *Staphylococcus aureus*, *Staph. epidermidis*, *Str. agalactiae*, *Str. bovis*, *Str. mutans*, *viridans streptococci*, *enterococci*<sup>[2]</sup>.

**In Vivo:** Vancomycin is administered intravenously, with a standard infusion time of at least 1 h, to minimize infusion-related

adverse effects. Subjects with normal creatinine clearance, vancomycin has an  $\alpha$ -distribution phase of 30 min to 1 h and a  $\beta$ -elimination half-life of 6-12 h. The volume of distribution is 0.4-1 L/kg. The binding of vancomycin to protein ranges from 10% to 50%. Factors that affect the overall activity of vancomycin include its tissue distribution, inoculum size, and protein-binding effects<sup>[1]</sup>. Vancomycin treatment of infected mice is associated with improved clinical, diarrhea, and histopathology scores and survival during treatment<sup>[3]</sup>.



All products are for RESEARCH USE ONLY. Not for diagnostic & therapeutic purposes!