

# Daptomycin

## Catalog No: tcsc1857



### Available Sizes

**Size:** 50mg

**Size:** 100mg



### Specifications

**CAS No:**

103060-53-3

**Formula:**

$C_{72}H_{101}N_{17}O_{26}$

**Pathway:**

Anti-infection

**Target:**

Bacterial

**Purity / Grade:**

>98%

**Solubility:**

H<sub>2</sub>O : ≥ 66.66 mg/mL (41.13 mM)

**Alternative Names:**

LY146032

**Observed Molecular Weight:**

1620.67

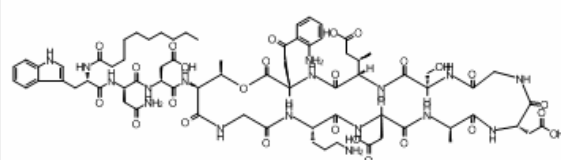
## Product Description

Daptomycin is a lipopeptide antibiotic with rapid in vitro bactericidal activity against gram-positive organisms.

***In Vitro:***

Daptomycin has excellent in-vitro inhibitory and bactericidal activity against nafcillin-susceptible and resistant staphylococci (MIC<sub>90</sub> less than or equal to 0.5 mg/L) and against enterococci (MIC<sub>90</sub> less than or equal to 2.0 mg/L). Daptomycin is more active than vancomycin against the majority of isolated tested. With the exception of trimethoprim-sulphamethoxazole, daptomycin is the most active agent in vitro against enterococci, and is the most active against nafcillin-resistant staphylococci. Daptomycin and vancomycin show a marked increase in MIC when the inoculum is increased from 10<sup>5</sup> to 10<sup>7</sup> cfu/mL<sup>[1]</sup>. Daptomycin is effective within a very narrow range of drug concentrations (from 0.125 to 2.0 tLg/mL) and is more active than other agents tested against *S. faecalis*<sup>[2]</sup>. Daptomycin inhibits the formation of these nucleotide-linked intermediates<sup>[3]</sup>.

***In Vivo:*** At a dose of 10 mg/kg given twice daily, daptomycin reduces the number of organisms per kidney significantly compared with that in infected untreated controls within 48 h after the initiation of therapy. At 20 mg/kg given once a day, daptomycin is less effective but reduces colony counts significantly after 4 days of therapy, and its activity is comparable to that of vancomycin or vancomycin-gentamicin given twice daily<sup>[2]</sup>.



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