

# Cefiderocol

Catalog No: tcsc0016784



## Available Sizes

**Size:** 1mg

**Size:** 5mg

**Size:** 10mg

**Size:** 25mg

**Size:** 50mg

**Size:** 100mg



## Specifications

**CAS No:**

1225208-94-5

**Formula:**

$C_{30}H_{34}ClN_7O_{10}S_2$

**Pathway:**

Anti-infection

**Target:**

Bacterial

**Purity / Grade:**

>98%

**Solubility:**

10 mM in DMSO

**Alternative Names:**

S-649266

**Observed Molecular Weight:**

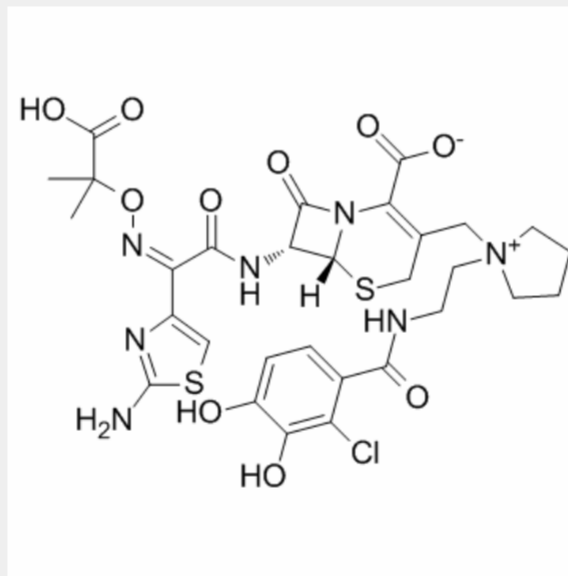
752.21

**Product Description**

Cefiderocol is a novel siderophore cephalosporin which has a potent activity against a broad range of aerobic Gram-negative **bacterial** species with **MIC<sub>50</sub>**s of 2 µg/mL or less.

IC50 & Target: MIC50: [1]

**In Vitro:** Cefiderocol (CFDC; S-649266), a novel parenteral siderophore cephalosporin conjugated with a catechol moiety, has a characteristic antibacterial spectrum with a potent activity against a broad range of aerobic Gram-negative bacterial species, including carbapenem-resistant strains of *Enterobacteriaceae* and nonfermenting bacteria such as *Pseudomonas aeruginosa* and *Acinetobacter baumannii*. Cefiderocol has affinity mainly for penicillin-binding protein 3 (PBP3) of *Enterobacteriaceae* and nonfermenting bacteria similar to that of ceftazidime. A deficiency of the iron transporter PiuA in *P. aeruginosa* or both CirA and Fiu in *Escherichia coli* can cause 16-fold increases in cefiderocol MICs, suggesting that these iron transporters contribute to the permeation of cefiderocol across the outer membrane. The deficiency of OmpK35/36 in *Klebsiella pneumoniae* and the overproduction of efflux pump MexA-MexB-OprM in *P. aeruginosa* show no significant impact on the activity of cefiderocol<sup>[1]</sup>.



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