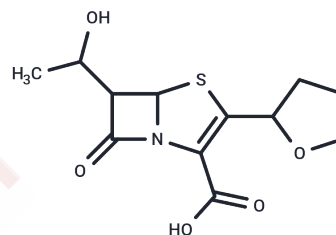


Faropenem

Chemical Properties

CAS No. :	106560-14-9
Formula:	C ₁₂ H ₁₅ NO ₅ S
Molecular Weight:	285.31
Storage:	Powder: -20°C for 3 years In solvent: -80°C for 1 year Actual storage temperature shall be subject to the COA.



Biological Description

Description	Faropenem, a highly efficacious and orally bioavailable beta-lactam antibiotic, exhibits an extensive range of in vitro antimicrobial activity against diverse gram-positive and -negative aerobes and anaerobes. Notably, Faropenem possesses inherent resistance to hydrolysis by virtually all beta-lactamases, including extended-spectrum beta-lactamases and AmpC beta-lactamases. Moreover, Faropenem has been developed as an oral prodrug, namely faropenem medoxomil, for the investigation of respiratory tract infections.
Targets(IC50)	Others,Antibacterial,Antibiotic
In vitro	Faropenem is ineffective against methicillin-resistant Staphylococcus aureus (MRSA), vancomycin-resistant Enterococcus faecium (VRE), Pseudomonas aeruginosa, and Stenotrophomonas maltophilia[1]. However, it effectively inhibits all isolates of B. anthracis, with MIC (Minimum Inhibitory Concentration) values ranging from ≤0.06 to >64 µg/liter and an MIC90 (the concentration at which 90% of isolates are inhibited) of 0.5 µg/ml. This MIC90 value for Faropenem is notably lower than those for other β-lactams, such as Meropenem (4 µg/ml), Amoxicillin-clavulanate (4 µg/ml), and Penicillin (8 µg/ml), demonstrating its superior efficacy against B. anthracis[2].
In vivo	Faropenem, administered intraperitoneally (i.p.) at 24 hours post-challenge in 4-, 6-, and 12-hour intervals at dosages of 10, 20, 40, and 80 mg/kg/day for 14 days, demonstrates significant efficacy against B. anthracis in the murine post-exposure prophylaxis inhalation model[1].

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.505 mL	17.5248 mL	35.0496 mL
5 mM	0.701 mL	3.505 mL	7.0099 mL
10 mM	0.3505 mL	1.7525 mL	3.505 mL
50 mM	0.0701 mL	0.3505 mL	0.701 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

Kristen N Schurek, et al. Faropenem: review of a new oral penem. *Expert Rev Anti Infect Ther.* 2007 Apr;5(2):185-98.

Stanley C Gill, et al. Pharmacokinetic-pharmacodynamic assessment of faropenem in a lethal murine *Bacillus anthracis* inhalation postexposure prophylaxis model. *Antimicrob Agents Chemother.* 2010 May;54(5):1678-83.

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