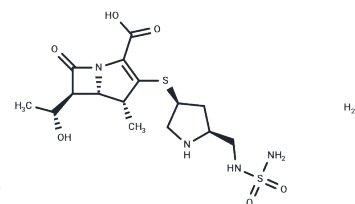


Doripenem monohydrate

Chemical Properties

CAS No. : 364622-82-2
Formula: C₁₅H₂₄N₄O₆S₂·H₂O
Molecular Weight: 438.52
Appearance: no data available
Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year



Biological Description

Description	Doripenem monohydrate (S 4661 monohydrate) is a broad-spectrum injectable antibiotic, used for Gram-positive, Gram-negative and anaerobic pathogens.
Targets(IC50)	Antibacterial,Antibiotic
In vitro	Doripenem is active against <i>Aeromonas</i> (MIC ₅₀ , 0.03 mg/L), <i>Bacillus</i> spp. (MIC ₅₀ , 0.03 mg/L) and all tested anaerobic species (MIC range, < or =0.015-4 mg/L), but is less active against <i>S. maltophilia</i> (MIC ₉₀ , >32 mg/L) and <i>Enterococcus faecium</i> (MIC ₉₀ , >32 mg/L) among the enterococcal species. [1] Doripenem is the most active carbapenem (MIC ₉₀ , 1 to 4 mg/mL) against penicillin-resistant streptococci. [2] Doripenem is found to be highly active against oxacillin-susceptible <i>Staphylococcus aureus</i> and coagulase-negative staphylococci (2705 and 297 isolates, respectively; MIC ₉₀ s 0.06 mg/L), with a potency greater than that of other carbapenem antibiotics. Doripenem is among the most potent agents tested against <i>Streptococcus pneumoniae</i> , viridans group streptococci and beta-haemolytic streptococci (885, 140 and 397 isolates; MIC(90)s 0.5, 0.5 and 0.03 mg/L, respectively). Doripenem is also active against <i>Citrobacter</i> spp., <i>Enterobacter</i> spp. and <i>Serratia</i> spp. (MIC ₉₀ s 0.06-0.25 mg/L), including ceftazidime-resistant isolates. Doripenem is slightly more potent (MIC ₅₀ 2 mg/L) than ertapenem and imipenem (MIC ₅₀ 4 mg/L), and has a potency similar to that of meropenem (MIC ₅₀ 2 mg/L), against <i>Burkholderia cepacia</i> (20 isolates). [3] Doripenem demonstrates in vitro activity similar to that of meropenem against gram-negative pathogens and to that of imipenem against gram-positive pathogens. [4]

Solubility Information

Solubility	Ethanol: < 1 mg/mL (insoluble or slightly soluble), DMSO: 34 mg/mL (77.5 mM), H ₂ O: 24 mg/mL (54.7 mM), (< 1 mg/ml refers to the product slightly soluble or insoluble)
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A DRUG SCREENING EXPERT

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.2804 mL	11.402 mL	22.804 mL
5 mM	0.4561 mL	2.2804 mL	4.5608 mL
10 mM	0.228 mL	1.1402 mL	2.2804 mL
50 mM	0.0456 mL	0.228 mL	0.4561 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.

Reference

Jones RN, et al. J Antimicrob Chemother, 2004, 54(1), 144-154.

Jones RN, et al. Antimicrob Agents Chemother, 2004, 48(8), 3136-3140.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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