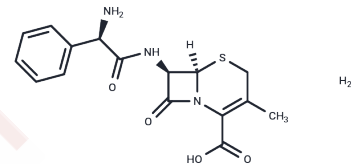


Cephalexin monohydrate

Chemical Properties

CAS No. :	23325-78-2
Formula:	C ₁₆ H ₁₉ N ₃ O ₅ S
Molecular Weight:	365.40
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	Cephalexin monohydrate (Cephalexin hydrate) is an orally available semi-synthetic cephalosporin antibiotic with significant antimicrobial activity that inhibits bacterial proliferation by targeting penicillin-binding proteins (PBPs).
Targets(IC50)	Antibacterial, Antibiotic
In vivo	In male Swiss-Webster mice infected with bacteria, cephalexin monohydrate (0-50 mg/kg; oral administration; for 3.5 hours) exhibited antibacterial activity against Streptococcus pyogenes, Streptococcus pneumoniae, Staphylococcus aureus, and several gram-negative species[2].

Solubility Information

Solubility	H ₂ O: 1 mg/mL (2.74 mM), Sonication is recommended. DMSO: 5 mg/mL (13.68 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.7367 mL	13.6836 mL	27.3673 mL
5 mM	0.5473 mL	2.7367 mL	5.4735 mL
10 mM	0.2737 mL	1.3684 mL	2.7367 mL
50 mM	0.0547 mL	0.2737 mL	0.5473 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

Cho H, et al. Beta-lactam antibiotics induce a lethal malfunctioning of the bacterial cell wall synthesis machinery. *Cell*. 2014 Dec 4;159(6):1300-11.

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Davis JL, Salmon JH, Papich MG. Pharmacokinetics and tissue fluid distribution of cephalexin in the horse after oral and i.v. administration. *J Vet Pharmacol Ther*. 2005 Oct;28(5):425-31. PubMed PMID: 16207304.

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