

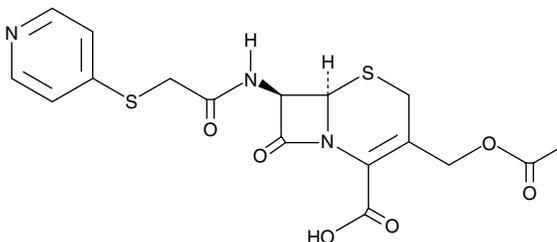
Product Information



Cefapirin

Item No. 17406

CAS Registry No.: 21593-23-7
Formal Name: (6R,7R)-3-[(acetyloxy)methyl]-8-oxo-7-[[[(4-pyridinylthio)acetyl]amino]-5-thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid
Synonyms: Cefadyl, Cephapirin
MF: C₁₇H₁₇N₃O₆S₂
FW: 423.5
Purity: ≥95%
Stability: ≥2 years at -20°C
Supplied as: A crystalline solid
UV/Vis.: λ_{max}: 261 nm



Laboratory Procedures

For long term storage, we suggest that cefapirin be stored as supplied at -20°C. It should be stable for at least two years.

Cefapirin is supplied as a crystalline solid. A stock solution may be made by dissolving the cefapirin in the solvent of choice. Cefapirin is soluble in organic solvents such as DMSO and dimethyl formamide, which should be purged with an inert gas. The solubility of cefapirin in these solvents is approximately 10 and 5 mg/ml, respectively.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of cefapirin can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of cefapirin in PBS, pH 7.2, is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Cefapirin is a first generation cephalosporin antibiotic that is broadly effective against gram-negative and gram-positive bacteria.^{1,2} The bactericidal action of cefapirin results from inhibition of cell-wall synthesis, mediated by its binding to penicillin binding proteins. It is mainly used in veterinary medicine for intramammary treatment of mastitis and intrauterine treatment of endometritis in cattle.^{1,2}

References

1. Committee for veterinary medicinal products: Cefapirin, *in* The European Agency for the Evaluation of Medicinal Products, EMEA, 1 (2001).
2. Ray, P., Knowlton, K.F., Shang, C., *et al.* Development and validation of a UPLC-MS/MS method to monitor cefapirin excretion in dairy cows following intramammary infusion. *PLoS One* **9**(11), 1-12 (2014).

Related Products

For a list of related products please visit: www.caymanchem.com/catalog/17406

WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY: NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY

Cayman Chemical Company makes **no warranty or guarantee** of any kind, whether written or oral, expressed or implied, including without limitation, any warranty of fitness for a particular purpose, suitability and merchantability, which extends beyond the description of the chemicals hereof. Cayman **warrants only** to the original customer that the material will **meet our specifications at the time of delivery**.

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