

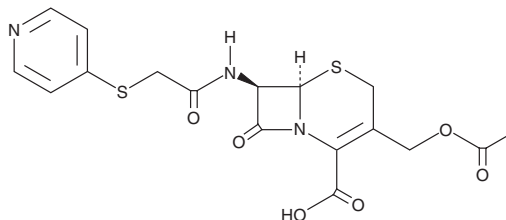
# PRODUCT INFORMATION



## 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:** C<sub>17</sub>H<sub>17</sub>N<sub>3</sub>O<sub>6</sub>S<sub>2</sub>  
**FW:** 423.5  
**Purity:** ≥95%  
**UV/Vis.:** λ<sub>max</sub>: 261 nm  
**Supplied as:** A crystalline solid  
**Storage:** -20°C  
**Stability:** ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Laboratory Procedures

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.

### Description

Cefapirin is a first generation cephalosporin antibiotic that is broadly effective against gram-negative and gram-positive bacteria.<sup>1,2</sup> 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.<sup>1,2</sup>

### 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 cephalosporin excretion in dairy cows following intramammary infusion. *PLoS One* **9(11)**, 1-12 (2014).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. 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

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