

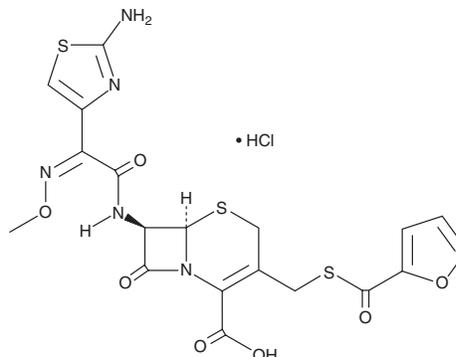
PRODUCT INFORMATION



Ceftiofur (hydrochloride)

Item No. 27301

CAS Registry No.: 103980-44-5
Formal Name: (6R,7R)-7-[[[(2Z)-2-(2-amino-4-thiazolyl)-2-(methoxyimino)acetyl]amino]-3-[[[2-furanylcarbonyl]thio]methyl]-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid, monohydrochloride
Synonyms: U-64279A, U-67279A
MF: C₁₉H₁₇N₅O₇S₃ • HCl
FW: 560.0
Purity: ≥98%
UV/Vis.: λ_{max}: 288 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

Ceftiofur (hydrochloride) is supplied as a crystalline solid. A stock solution may be made by dissolving the ceftiofur (hydrochloride) in the solvent of choice, which should be purged with an inert gas. Ceftiofur (hydrochloride) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of ceftiofur (hydrochloride) in these solvents is approximately 15, 20, and 30 mg/ml, respectively.

Ceftiofur (hydrochloride) is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, ceftiofur (hydrochloride) should first be dissolved in DMF and then diluted with the aqueous buffer of choice. Ceftiofur (hydrochloride) has a solubility of approximately 0.25 mg/ml in a 1:3 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Ceftiofur is a broad-spectrum cephalosporin antibiotic.¹ It is active against porcine isolates of *A. pleuropneumoniae*, *P. multocida*, *S. typhimurium*, *S. cholerae-suis*, *E. coli*, *S. suis*, and β-hemolytic streptococci with MIC₉₀ values of less than or equal to 2 μg/ml. Ceftiofur exhibits curative rates of 43, 88, and 100% in a lactating bovine model of intramammary *S. uberis* infection when administered *via* intramammary infusion at a dose of 125 mg per infected quarter for 2, 5, and 8 days, respectively.² Formulations containing ceftiofur have been used in the veterinary treatment of bacterial infections.

References

1. Salmon, S.A., Watts, J.L., Case, C.A., *et al.* Comparison of MICs of ceftiofur and other antimicrobial agents against bacterial pathogens of swine from the United States, Canada, and Denmark. *J. Clin. Microbiol.* **33**(9), 2435-2444 (1995).
2. Oliver, S.P., Almeida, R.A., Gillespie, B.E., *et al.* Extended ceftiofur therapy for treatment of experimentally-induced *Streptococcus uberis* mastitis in lactating dairy cattle. *J. Dairy Sci.* **87**(10), 3322-3329 (2004).

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.

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