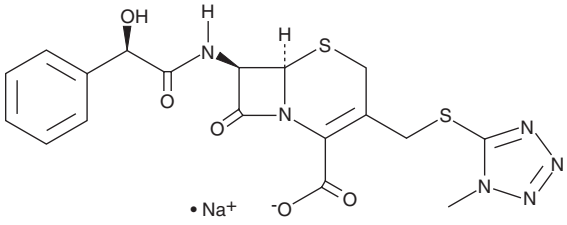
PRODUCT INFORMATION

Cefamandole (sodium salt)

Item No. 18138

CAS Registry No.: 30034-03-8
Formal Name: (6R,7R)-7-[[(2R)-2-hydroxy-2-phenylacetyl]amino]-3-[[(1-methyl-1H-tetrazol-5-yl)thio]methyl]-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid, monosodium salt
Synonym: Cephamandole
MF: $C_{18}H_{17}N_6O_5S_2 \bullet Na$
FW: 484.5
Purity: ≥95%
UV/Vis.: λ_{max}: 270 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

Cefamandole (sodium salt) is supplied as a crystalline solid. A stock solution may be made by dissolving the cefamandole (sodium salt) in the solvent of choice, which should be purged with an inert gas. Cefamandole (sodium salt) is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of cefamandole (sodium salt) in these solvents is approximately 30 mg/ml.

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 cefamandole (sodium salt) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of cefamandole (sodium salt) in PBS, pH 7.2, is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Cefamandole is a cephalosporin antibiotic that is effective against *E. coli* (MIC values range from 0.25-2 mg/L depending on strain) as well as *H. influenza*, *S. pneumoniae*, and *S. aureus*.[1,2] It has been used to study the expression and inhibition of penicillin-binding proteins on bacterial cell walls and to study antibiotic resistance.[1]

References

1. Sarkar, S.K., Dutta, M., Kumar, A., *et al.* Sub-inhibitory cefsulodin sensitization of *E. coli* to β-lactams is mediated by PBP1b inhibition. *PLoS One* **7(11)**, (2012).
2. Kalman, D. and Barriere, S.L. Review of the pharmacology, pharmacokinetics, and clinical use of cephalosporins. *Texas Heart Institute Journal* **17(3)**, 203-215 (1990).

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