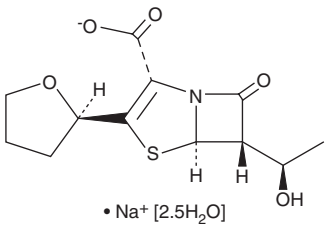
PRODUCT INFORMATION

Faropenem (sodium salt hydrate)

Item No. 34507

CAS Registry No.: 158365-51-6
Formal Name: (5R,6S)-6-[(1R)-1-hydroxyethyl]-7-oxo-3-[(2R)-tetrahydro-2-furanyl]-4-thia-1-azabicyclo[3.2.0]hept-2-ene-2-carboxylic acid, monosodium salt, pentahydrate
MF: $C_{12}H_{14}NO_5S \bullet Na\ [2.5H_2O]$
FW: 352.3
Purity: ≥98%
UV/Vis.: λ_{max}: 263, 304 nm
Supplied as: A solid
Storage: -20°C
Stability: ≥2 years



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

Laboratory Procedures

Faropenem (sodium salt hydrate) is supplied as a solid. A stock solution may be made by dissolving the faropenem (sodium salt hydrate) in the solvent of choice, which should be purged with an inert gas. Faropenem (sodium salt hydrate) is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of faropenem (sodium salt hydrate) in these solvents is approximately 5 and 1 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 faropenem (sodium salt hydrate) can be prepared by directly dissolving the solid in aqueous buffers. The solubility of faropenem (sodium salt hydrate) in PBS (pH 7.2) is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Faropenem is a broad-spectrum penem antibiotic.[1] It is active against a panel of 12 Gram-positive (MIC_{50}s = 0.008-1 mg/L) and 15 Gram-negative (MIC_{50}s = 0.06-16 mg/L) bacteria. Faropenem (20 mg/kg) reduces the number of lung colony forming units (CFUs) in a mouse model of *H. influenzae*-induced respiratory tract infection.[2] Formulations containing faropenem have been used in the treatment of various bacterial infections.

References

1. Schurek, K.N., Wiebe, R., Karlowsky, J.a., *et al.* Faropenem: Review of a new oral penem. *Expert Rev. Anti. Infect. Ther.* **5(2)**, 185-198 (2007).
2. Miyazaki, S., Hosoyama, T., Furuya, N., *et al.* In vitro and in vivo antibacterial activities of L-084, a novel oral carbapenem, against causative organisms of respiratory tract infections. *Antimicrob. Agents Chemother.* **45(1)**, 203-207 (2001).

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