Roxithromycin
Item No. 19465

CAS Registry No.: 80214-83-1
Formal Name: 9E-[O-[(2-methoxyethoxy)methyl] oxime]-erythromycin
Synonyms: RU 965, RU 28965
MF: C_{41}H_{76}N_{2}O_{15}
FW: 837.1
Purity: ≥95%
Supplied as: A 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

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

Roxithromycin is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, roxithromycin should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. Roxithromycin has a solubility of approximately 0.5 mg/ml in a 1:1 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Roxithromycin is a macrolide antibiotic. It is active against various Gram-positive and Gram-negative bacteria, including five strains each of Staphylococcus and Streptococcus (geometric mean MICs = 0.08 and 0.79 µg/ml, respectively), as well as several strains each of Corynebacterium, Haemophilus, and S. pneumoniae (MIC_{50} = 0.02, 0.01, and 2.5 µg/ml, respectively). Roxithromycin is protective against infection by strains of S. aureus, S. pyogenes, S. pneumoniae, or L. monocytogenes in mice with 50% protective dose (PD_{50}) values ranging from 23 to 98 mg/kg. Formulations containing roxithromycin have been used in the treatment of bacterial infections.

Reference