Product Name: Moxifloxacin HCl

Chemical Properties

Product Name: Moxifloxacin HCl
Cas No.: 186826-86-8
M.Wt: 437.89
Formula: C21H24FN3O4.HCl

Chemical Name: 7-[(4aS,7aS)-1,2,3,4,4a,5,7,7a-octahydropyrrolo[3,4-b]pyridin-6-yl]-1-cyclopropyl-6-fluoro-8-methoxy-4-oxoquinoline-3-carboxylic acid;hydrochloride
Canonical SMILES: COC1=C2C(=CC(=C1N3CC4CCCNC4C3)F)C(=O)C(=CN2C5CC5)C(=O)O. Cl
Solubility: >19.2mg/mL in DMSO
Storage: Store at -20°C
General tips: For obtaining a higher solubility, please warm the tube at 37°C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.
Shopping Condition: Evaluation sample solution: ship with blue ice
All other available size: ship with RT, or blue ice upon request

Biological Activity

Targets: DNA Damage/DNA Repair
Pathways: Topoisomerase
Description:
Moxifloxacin HCl is an anti-infective compound with a broad antibacterial spectrum.[1] Moxifloxacin is a fourth generation fluoroquinolone antibacterial agent with a broad antibacterial spectrum against Gram positive bacteria and Gram negative bacteria in vitro.[1] The antibacterial activity of moxifloxacin is from the inhibition effect of DNA topoisomerase II and topoisomerase IV which are involved in bacterial DNA replication, transcription, recombination and repair.[2] The oral bioavailability of moxifloxacin is absolutely good which can be up to 90%. There are no many potential drug interactions because that moxifloxacin is not a inhibitor or substrate of the hepatic cytochrome P-450 isoenzyme system. Moxifloxacin had bacteriologic eradication rates about 90 – 97% and clinical success rates of 88 – 97%. The MIC90s of moxifloxacin for the ciprofloxacin-susceptible isolates were ≤0.6 μ g/mL. The MIC90s of moxifloxacin for enterococci range from 1 to 4 μ g/mL. The reported MIC90s of moxifloxacin for Haemophilus parainfluenzae are from 0.03 to 0.125 μg/mL. The MIC90s of moxifloxacin for B. fragilis range 0.25–4 μg/mL and 4 μg/mL for other bacteroides species. [3] Moxifloxacin also inhibits hPON1 (human serum paraoxonase-1) enzyme activity with Ki value of 2.641±0.004 mM in vitro.[4]

Reference:

For Research Purposes Only.

Not for Human, Veterinary Diagnostic or Therapeutic Use.

Specific storage and handling information for each product is indicated on the product datasheet. Most ApexBio products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Shortterm storage of many products are stable in the short-term at temperatures that differ from that required for long-term storage. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt of the product, follow the storage recommendations on the product data sheet.