Data Sheet (Cat.No.T6406)

TargetMol

Besifloxacin Hydrochloride

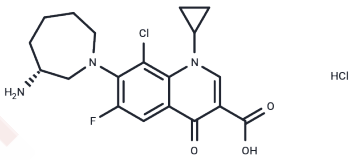
Chemical Properties

CAS No. : 405165-61-9

Formula: C19H21ClFN3O3·HCl

Molecular Weight: 430.3

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.



Biological Description

Description	Besifloxacin Hydrochloride (BOL-303224-A) is a fourth-generation fluoroquinolone antibiotic.
Targets(IC50)	Antibacterial,Antibiotic,DNA/RNA Synthesis,Topoisomerase
In vitro	Besifloxacin has effectively bactericidal activity against prevalent and drug-resistant pathogens. Besifloxacin is the most potent agent tested against gram-positive pathogens and anaerobes and is generally equivalent to comparator fluoroquinolones in activity against most gram-negative pathogens. Besifloxacin demonstrates potent, broad-spectrum activity, which is particularly notable against gram-positive and gram-negative isolates that are resistant to other fluoroquinolones and classes of antibacterial agents.
Kinase Assay	20 ng of purified human DDK, together with increasing concentrations of each DDK inhibitor is pre-incubated for 5 min. Then 10 μCi (γ)-32P ATP and 1.5 μM cold ATP are added in a buffer containing 50 mM Tris-HCl (pH 7.5), 10 mM MgCl2, and 1 mM DTT and incubated for 30 min at 30°C. The proteins are denatured in 1X Laemmli buffer at 100°C followed by SDS-PAGE and autoradiography on HyBlot CL film. DDK kinase activity is indicated by Auto-phosphorylation of DDK. 32P-labeled bands are quantified using ImageJ and the IC50 values are calculated using GraphPad.

Solubility Information

Solubility	DMSO: 11 mg/mL (25.56 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.324 mL	11.6198 mL	23.2396 mL
5 mM	0.4648 mL	2.324 mL	4.6479 mL
10 mM	0.2324 mL	1.162 mL	2.324 mL
50 mM	0.0465 mL	0.2324 mL	0.4648 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

McDonald MB, et al. Ophthalmology, 2009, 116(9), 1615-1623.
Kaduk J A, Gates-Rector S, Blanton T N.Crystal structure of besifloxacin hydrochloride, C19H22ClFN3O3Cl.Powder Diffraction.2023: 1-10.
Haas W, et al, Antimicrob Agents Chemother, 2009, 53(8), 3552-3560.