Product Data Sheet

Product Name: Clinafloxacin (hydrochloride)
Cat. No.: GC13259

Chemical Properties

Cas. No.	105956-99-8		
Chemical Name	7-(3-amino-1-pyrrolidinyl)-8-chloro-1-cyclopropyl-6-fluoro-1,4-dihydro-4-oxo-3-quinolinecarboxylic acid		
SMILES	OC(C1=CN(C2CC2)C3=C(Cl)C(N4CCC(N)C4)=C(F)C=C3C1=O)=O.Cl		
Formula	$C_{17}H_{17}ClFN_3O_3$ • HCl	M.Wt	402.3
Solubility	≤1mg/ml in methanol（heated)	Storage	Store at -20°C
General tips	For obtaining a higher solubility , please warm the tube at 37 ℃ and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20℃ for several months.		
Shipping Condition	Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.		
Structure	Clinafloxacin (hydrochloride)		

Background

Clinafloxacin is a broad-spectrum antibiotic of the quinolone carboxylic acid category that inhibits both DNA gyrase and topoisomerase IV dually in Streptococcus pneumonia. Clinafloxacin, a fluoroquinolone, is currently in development for oral and intravenous therapy of serious infections.

In selected volunteer subjects and patients, after the administration of oral and intravenous doses of racemic drug, the clinafloxacin showed a broad-spectrum antibiotic of the quinolone carboxylic acid category. The absorption of the clinafloxacin enantiomer was rapid after oral 400 mg dose and 400 mg intravenous dose of racemic drug [1]. Clinafloxacin showed high activity against S. pneumoniae 7785 with the MIC value of 0.125 μg/ml. Clinafloxacin showed potent broad-spectrum in vitro activity against gram-positive, gram-negative, and anaerobic pathogens [2]. Clinafloxacin has been identified as the most active fluoroquinolone against S. pneumoniae compared to grepafloxacin, levofloxacin, ofloxacin, sparfloxacin, and trovafloxacin and is currently being evaluated

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com
Address: 10292 Central Ave. #205, Montclair, CA, USA

as an antipneumococcal agent [3].

References:

[1]. Humphrey G H, Shapiro M A, Randinitis E J, et al. Pharmacokinetics of clinafloxacin enantiomers in humans[J]. The Journal of Clinical Pharmacology, 1999, 39(11): 1143-1150.

[2]. Pan X S, Fisher L M. DNA gyrase and topoisomerase IV are dual targets of clinafloxacin action in Streptococcus pneumoniae[J]. Antimicrobial Agents and Chemotherapy, 1998, 42(11): 2810-2816.

[3]. Jorgensen J H, Weigel L M, Swenson J M, et al. Activities of clinafloxacin, gatifloxacin, gemifloxacin, and trovafloxacin against recent clinical isolates of levofloxacin-resistant Streptococcus pneumoniae[J]. Antimicrobial agents and chemotherapy, 2000, 44(11): 2962-2968.

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com
Address: 10292 Central Ave. #205, Montclair, CA, USA