Product Data Sheet

Product Name: Gatifloxacin mesylate
Cat. No.: GC13860

Chemical Properties

Cas. No.	316819-28-0		
Chemical Name	1-cyclopropyl-6-fluoro-8-methoxy-7-(3-methylpiperazin-1-yl)-4-oxoquinoline-3-carboxylic acid;methanesulfonic acid		
SMILES	CC1CN(CCN1)C2=C(C=C3C(=C2OC)N(C=C(C3=O)C(=O)O)C4CC4)F.CS(=O)(=O)O		
Formula	$C_{20}H_{26}FN_3O_7S$	M.Wt	471.5
Solubility	Soluble in DMSO	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	Gatifloxacin mesylate		

Background

Gatifloxacin (mesylate) is an antibiotic of the fourth-generation fluoroquinolone family, it inhibits the bacterial enzymes DNA gyrase and topoisomerase IV.Target: AntibacterialGatifloxacin (mesylate) is the mesylate salt of Gatifloxacin which is an antibiotic of the fourth-generation fluoroquinolone family, that like other members of that family, inhibits the bacterial enzymes DNA gyrase and topoisomerase IV. Gatifloxacin had activity equal to that of tosufloxacin and activity more potent than those of norfloxacin, ofloxacin, ciprofloxacin, and sparfloxacin against the second-step mutants (grlA gyrA; gatifloxacin MIC range, 1.56 to 3.13 microg/ml) and had the most potent activity against the third-step mutants (grlA gyrA grlA; gatifloxacin MIC range, 1.56 to 6.25 microg/ml), suggesting that gatifloxacin possesses the most potent inhibitory activity against singly mutated topo IV and singly mutated DNA gyrase among the quinolones tested [1].Ophthalmic gatifloxacin 0.3% is at least as effective as ciprofloxacin at healing corneal ulcers infected with Pseudomonas aeruginosa when

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gatifloxacin is administered less frequently than ciprofloxacin. Trends favored gatifloxacin in fluorescein retention scores [2].Clinical indications: Bacterial infection
Toxicity: Hepatotoxicity; Acute pancreatitis [3]; Torsades de pointes [4]

References:
[1]. Fukuda, H., S. Hori, and K. Hiramatsu, Antibacterial activity of gatifloxacin (AM-1155, CG5501, BMS-206584), a newly developed fluoroquinolone, against sequentially acquired quinolone-resistant mutants and the norA transformant of Staphylococcus aureus. A
[2]. Jensen, H., et al., Comparison of ophthalmic gatifloxacin 0.3% and ciprofloxacin 0.3% in healing of corneal ulcers associated with Pseudomonas aeruginosa-induced ulcerative keratitis in rabbits. J Ocul Pharmacol Ther, 2005. 21(1): p. 36-43.
[3]. Cheung, O., et al., Gatifloxacin-induced hepatotoxicity and acute pancreatitis. Ann Intern Med, 2004. 140(1): p. 73-4.
[4]. Fteha, A., et al., Gatifloxacin induced torsades de pointes. Pacing Clin Electrophysiol, 2004. 27(10): p. 1449-50.

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