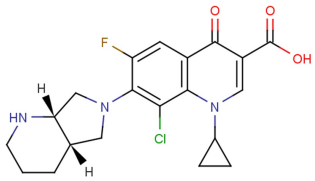
Data Sheet (Cat.No.T10478)

TargetMol
A DRUG SCREENING EXPERT

BAY-Y 3118

Chemical Properties



CAS No.:	151213-16-0
Formula:	C20H21ClFN3O3
Molecular Weight:	405.85
Appearance:	N/A
Storage:	0-4℃ for short term (days to weeks), or -20℃ for long term (months).

Biological Description

Description	BAY-Y 3118, a new chlorofluoroquinolone, has antimicrobial activity.
Targets(IC_{50})	Others: None
In vitro	BAY-Y 3118 is potent against Haemophilhs influenzae, Moraxela catarrhalis, Acinetobacter baumannii, Xanthomonas maltophiia, gram-positive cocci, and anaerobes; MICs for 50%o of the strains (MIC50s) and MIC90s are ≤0.015 and ≤0.015, ≤0.015 and ≤0.015, 0.03 and 2, 0.25 and 0.5, 0.06 and 1, and 0.12 and 0.25 μg/mL, respectively [1]. The cellular concentration-to-extracellular concentration ratio of BAY-Y 3118 is higher than 6.3 at extracellular concentrations ranging from 2 to 100 mg/L. The uptake of BAY-Y 3118 is rapid, reversible, and nonsaturable. The intracellular penetration of BAY-Y 3118 is significantly affected by environmental temperature and cell viability. BAY-Y 3118 reaches high intracellular concentrations within human polymorphonuclear leukocytes (PMNs) and remains active intracellularly [2]. BAY-Y 3118 is rapidly bactericidal in vitro, with a postantibiotic effect occurring for 3 h after removal of the antibiotic. L. monocytogenes is eliminated from infected L929 cells treated with BAY-Y 3118 [3].
In vivo	Immunocompetent mice are rapidly cured by treatment with 4 mg every 12 h. Concomitantly, the levels of interleukin 6 and gamma interferon in mouse sera decline rapidly. In immunocompetent mice, treatment with 2 mg of BAY-Y 3118 every 12 h results in a greater initial reduction in the listerial counts in the organs than treatment with 2 mg of ampicillin every 12 h [3].

Solubility Information

Solubility	< 1 mg/ml refers to the product slightly soluble or insoluble

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.464 mL	12.32 mL	24.64 mL
5 mM	0.493 mL	2.464 mL	4.928 mL
10 mM	0.246 mL	1.232 mL	2.464 mL
50 mM	0.049 mL	0.246 mL	0.493 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. The storage conditions and period of the stock solution: - 80 ℃ for 6 months; - 20 ℃ for 1 month. Please use it as soon as possible.

Reference

1. Fass RJ, et al. In vitro activity of Bay y 3118, a new quinolone. Antimicrob Agents Chemother. 1993 Nov;37(11):2348-57.
2. García I, et al. Intracellular penetration and activity of BAY Y 3118 in human polymorphonuclear leukocytes. Antimicrob Agents Chemother. 1994 Oct;38(10):2426-9.
3. Nichterlein T, et al. Bay Y 3118, a new quinolone derivative, rapidly eradicates Listeria monocytogenes from infected mice and L929 cells. Antimicrob Agents Chemother. 1994 Jul;38(7):1501-6.

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