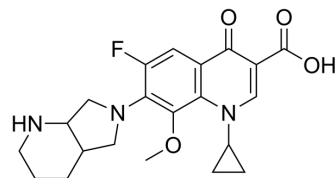


(Rac)-Moxifloxacin

Cat. No.:	HY-66011B		
CAS No.:	354812-41-2		
Molecular Formula:	C ₂₁ H ₂₄ FN ₃ O ₄		
Molecular Weight:	401.43		
Target:	Bacterial; Antibiotic		
Pathway:	Anti-infection		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



BIOLOGICAL ACTIVITY

Description	(Rac)-Moxifloxacin ((Rac)-BAY 12-8039 free base) is the isoform of Moxifloxacin Hydrochloride (HY-66011), which is an oral 8-methoxyquinolone antimicrobial for use in the treatment of acute bacterial sinusitis, acute bacterial exacerbations of chronic bronchitis, and community-acquired pneumonia ^{[1][2]} .
In Vitro	The in vitro activities of Moxifloxacin Hydrochloride (BAY 12-8039) and Amoxicillin are compared by time-kill curve and inhibition of intracellular growth experiments by using a model of bone marrow-derived mouse macrophages infected by <i>L. monocytogenes</i> EGDe. Moxifloxacin acts much more rapidly, beginning to exert its effects in the first 3 h and achieving complete broth sterilization within 24 h of incubation. Moxifloxacin appears to have a protective effect against macrophage lysis, as many cells are still viable after 24 h of incubation ^[3] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	Moxifloxacin (BAY 12-8039; 12 mg/kg; intravenous injection; once-three times per day; for 7 days; white male Wistar rats) treatment every 8 hours is accompanied by longer survival. Tissue cultures 30 hours after bacterial challenge shows considerably less bacterial overgrowth in the spleens and lungs of moxifloxacin-treated than in salinetreated animals and without being toxic ^[4] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

- [1]. Culley CM, et al. Moxifloxacin: clinical efficacy and safety. *Am J Health Syst Pharm*. 2001 Mar 1;58(5):379-88.
- [2]. Balfour JA, et al. Moxifloxacin: a review of its clinical potential in the management of community-acquired respiratory tract infections. *Drugs*. 2000 Jan;59(1):115-39.
- [3]. Grayo S, et al. Comparison of the in vitro efficacies of moxifloxacin and amoxicillin against *Listeria monocytogenes*. *Antimicrob Agents Chemother*. 2008 May;52(5):1697-702.
- [4]. Ioannidis O, et al. Effect of moxifloxacin on survival, lipid peroxidation and inflammation in immunosuppressed rats with soft tissue infection caused by *Stenotrophomonas maltophilia*. *Microbiol Immunol*. 2014 Feb;58(2):96-102.

Caution: Product has not been fully validated for medical applications. For research use only.

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