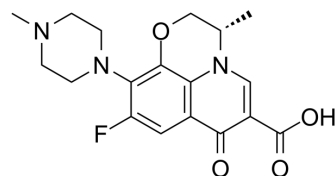


Levofloxacin

Cat. No.:	HY-B0330
CAS No.:	100986-85-4
Molecular Formula:	C ₁₈ H ₂₀ FN ₃ O ₄
Molecular Weight:	361.37
Target:	Bacterial; Antibiotic
Pathway:	Anti-infection
Storage:	4°C, protect from light * In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)



SOLVENT & SOLUBILITY

In Vitro	H ₂ O : 50 mg/mL (138.36 mM; Need ultrasonic)					
	DMSO : 10 mg/mL (27.67 mM; Need ultrasonic)					
	Preparing Stock Solutions	Solvent	Mass	1 mg	5 mg	10 mg
		Concentration				
		1 mM		2.7672 mL	13.8362 mL	27.6725 mL
5 mM			0.5534 mL	2.7672 mL	5.5345 mL	
10 mM		0.2767 mL	1.3836 mL	2.7672 mL		
Please refer to the solubility information to select the appropriate solvent.						
In Vivo	1. Add each solvent one by one: PBS Solubility: 25 mg/mL (69.18 mM); Clear solution; Need ultrasonic					

BIOLOGICAL ACTIVITY

Description	Levofloxacin, a synthetic fluoroquinolone, is an antibacterial agent that inhibits the supercoiling activity of bacterial DNA gyrase, halting DNA replication. Target: Antibacterial. Levofloxacin reduced bacterial load compared with placebo by 4.9-fold (95% confidence interval, 1.4-25.7; P=0.02) at day 7 but had no effect at any point on any marker of neutrophilic airway inflammation. In patients with a baseline bacterial load of more than 10(6) cfu/mL, levofloxacin treatment was associated with a 26.5% (95% confidence interval, 1.8%-51.3%; P=0.04) greater reduction in the percentage neutrophil count compared with placebo at day 7 [1]. Levofloxacin was found to significantly improve the clinical and microbiological parameters in CP individuals [2]. A 30-day course of levofloxacin does not significantly improve BK viral load reduction or allograft function when used in addition to overall reduction of immunosuppression [3].
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CUSTOMER VALIDATION

- Nat Commun. 2022 Mar 2;13(1):1116.
- Clin Chem. 2019 Dec;65(12):1522-1531.
- Antimicrob Agents Chemother. 2021 Feb 17;65(3):e01921-20.
- Antibiotics (Basel). 2022, 11(2), 192.

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[1]. Siva, R., et al., Effect of levofloxacin on neutrophilic airway inflammation in stable COPD: a randomized, double-blind, placebo-controlled trial. Int J Chron Obstruct Pulmon Dis, 2014. 9: p. 179-86.

[2]. Pradeep, A.R., et al., Clinical and microbiological effects of levofloxacin in the treatment of chronic periodontitis: a randomized, placebo-controlled clinical trial. J Investig Clin Dent, 2014.

[3]. Lee, B.T., et al., Efficacy of Levofloxacin in the Treatment of BK Viremia: A Multicenter, Double-Blinded, Randomized, Placebo-Controlled Trial. Clin J Am Soc Nephrol, 2014.

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

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