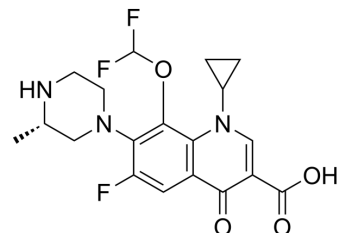


## Cadrofloxacin

<b>Cat. No.:</b>	HY-116228		
<b>CAS No.:</b>	153808-85-6		
<b>Molecular Formula:</b>	C <sub>19</sub> H <sub>20</sub> F <sub>3</sub> N <sub>3</sub> O <sub>4</sub>		
<b>Molecular Weight:</b>	411.38		
<b>Target:</b>	Bacterial		
<b>Pathway:</b>	Anti-infection		
<b>Storage:</b>	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



### SOLVENT & SOLUBILITY

<b>In Vitro</b>	DMSO : 10 mg/mL (24.31 mM); ultrasonic and warming and adjust pH to 3 with HCl and heat to 80°C)				
		Solvent Concentration	Mass 1 mg	5 mg	10 mg
	<b>Preparing Stock Solutions</b>	1 mM	2.4308 mL	12.1542 mL	24.3084 mL
		5 mM	0.4862 mL	2.4308 mL	4.8617 mL
10 mM		0.2431 mL	1.2154 mL	2.4308 mL	
Please refer to the solubility information to select the appropriate solvent.					
<b>In Vivo</b>	<ol style="list-style-type: none"> <li>Add each solvent one by one: 10% DMSO &gt;&gt; 40% PEG300 &gt;&gt; 5% Tween-80 &gt;&gt; 45% saline Solubility: ≥ 1 mg/mL (2.43 mM); Clear solution</li> <li>Add each solvent one by one: 10% DMSO &gt;&gt; 90% (20% SBE-β-CD in saline) Solubility: ≥ 1 mg/mL (2.43 mM); Clear solution</li> <li>Add each solvent one by one: 10% DMSO &gt;&gt; 90% corn oil Solubility: ≥ 1 mg/mL (2.43 mM); Clear solution</li> </ol>				

### BIOLOGICAL ACTIVITY

<b>Description</b>	Cadrofloxacin (Caderofloxacin; CS-940), a orally active fluoroquinolone, is effective against aerobic/anaerobic Gram-positive and Gram-negative bacteria. Cadrofloxacin can be used for the research of infectious diseases <sup>[1][2][3]</sup> .
<b>In Vitro</b>	<p>Cadrofloxacin against <i>M.tuberculosis</i> with a MIC<sub>50</sub> of 0.25 μg/mL<sup>[1]</sup>.</p> <p>Cadrofloxacin against <i>Acinetobacter</i> spp. and <i>Stenotrophomonas</i> (<i>Xanthomonas</i>) <i>maltophilia</i> with MIC<sub>90</sub>s of 0.03 and 2 μg/ml, respectively<sup>[2]</sup>.</p> <p>Cadrofloxacin against <i>Haemophilus influenzae</i>, <i>Moraxella catarrhalis</i>, and <i>Neisseria</i> spp. with MIC<sub>90</sub>s less than or equal to</p>

	<p>0.06 µg/mL<sup>[2]</sup>.          Cadrofloxacin against members of the family Enterobacteriaceae with MIC<sub>90</sub>s of 0.015 to 16 µg/mL (median MIC<sub>90</sub>, 0.06 µg/mL)<sup>[2]</sup>.          MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>								
<b>In Vivo</b>	<p>Cadrofloxacin (9 mg/kg; i.g.; once or twice daily for 14 consecutive days) increases the activity of hepatic CYP2E1 in rats<sup>[2]</sup>.          MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>								
	<table border="1"> <tr> <td>Animal Model:</td> <td>Male Sprague-Dawley rats weighing 180-220 g<sup>[2]</sup></td> </tr> <tr> <td>Dosage:</td> <td>9 mg/kg</td> </tr> <tr> <td>Administration:</td> <td>I.g. once or twice daily for 14 consecutive days</td> </tr> <tr> <td>Result:</td> <td> <p>Enhanced the expression of hepatic CYP2E1 mRNA, inducing a 1.6-fold increase compared with that of control rats.            The level of CYP2E1 protein in the hepatic microsomes was significantly higher than control group, 190% of that in control rats.</p> </td> </tr> </table>	Animal Model:	Male Sprague-Dawley rats weighing 180-220 g <sup>[2]</sup>	Dosage:	9 mg/kg	Administration:	I.g. once or twice daily for 14 consecutive days	Result:	<p>Enhanced the expression of hepatic CYP2E1 mRNA, inducing a 1.6-fold increase compared with that of control rats.            The level of CYP2E1 protein in the hepatic microsomes was significantly higher than control group, 190% of that in control rats.</p>
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## REFERENCES

[1]. Bryskier A, et al. Fluoroquinolones and tuberculosis. *Expert Opin Investig Drugs*. 2002 Feb;11(2):233-58.

[2]. Biedenbach DJ, et al. Antimicrobial activity of CS-940, a new trifluorinated quinolone. *Antimicrob Agents Chemother*. 1995 Oct;39(10):2325-30.

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

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