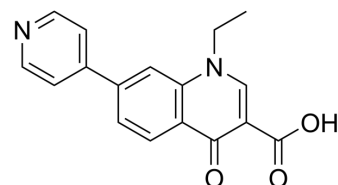


## Rosoxacin

<b>Cat. No.:</b>	HY-A0208		
<b>CAS No.:</b>	40034-42-2		
<b>Molecular Formula:</b>	C <sub>17</sub> H <sub>14</sub> N <sub>2</sub> O <sub>3</sub>		
<b>Molecular Weight:</b>	294.3		
<b>Target:</b>	Bacterial; Antibiotic		
<b>Pathway:</b>	Anti-infection		
<b>Storage:</b>	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	2 years
		-20°C	1 year



### SOLVENT & SOLUBILITY

<b>In Vitro</b>	DMSO : 20.83 mg/mL (70.78 mM; Need ultrasonic)				
		Solvent Concentration	Mass 1 mg	5 mg	10 mg
	<b>Preparing Stock Solutions</b>	1 mM	3.3979 mL	16.9895 mL	33.9789 mL
		5 mM	0.6796 mL	3.3979 mL	6.7958 mL
10 mM		0.3398 mL	1.6989 mL	3.3979 mL	
Please refer to the solubility information to select the appropriate solvent.					
<b>In Vivo</b>	1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 2.08 mg/mL (7.07 mM); Clear solution  2. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.08 mg/mL (7.07 mM); Clear solution				

### BIOLOGICAL ACTIVITY

<b>Description</b>	Rosoxacin (Acrosoxacin) is an orally active and broad-spectrum antibacterial quinolone antibiotic. Rosoxacin inhibits Gram-negative bacteria, including <i>N. gonorrhoeae</i> (MIC range=0.03-0.125 µg/mL). Rosoxacin can be used in studies of urinary tract infections and certain sexually transmitted diseases <sup>[1]</sup> .
<b>IC<sub>50</sub> &amp; Target</b>	Quinolone
<b>In Vitro</b>	Rosoxacin (0.03-8 µg/mL; 24 h) shows good susceptibilities to 32 strains of <i>N. gonorrhoeae</i> , with MIC range of 0.03-0.125 µg/mL <sup>[1]</sup> . Rosoxacin (0.03-8 µg/mL; 48 h) shows antibacterial activity to <i>C. trachomatis</i> (11 strains), with MICs are 5 µg/mL <sup>[1]</sup> . Rosoxacin (0.03-8 µg/mL; 6 days) shows antibacterial activity to <i>U. urealyticum</i> (7 strains), with MIC range of 2-8 µg/mL <sup>[1]</sup> .

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

#### Cell Viability Assay<sup>[1]</sup>

Cell Line:	N. gonorrhoeae (32 strains)
Concentration:	0.03-8 µg/mL
Incubation Time:	24 h
Result:	Exhibited good activity of anti-N. gonorrhoeae, with MICs for 50% (among 32 strains) strains of 0.03 µg/mL, and 0.06 µg/mL for 90%.

#### Cell Viability Assay<sup>[1]</sup>

Cell Line:	C. trachomatis (11 strains)
Concentration:	0.03-8 µg/mL
Incubation Time:	48 h
Result:	Inhibited 11 strains of C. trachomatis with MICs were 5 µg/mL.

#### Cell Viability Assay<sup>[1]</sup>

Cell Line:	U. urealyticum (7 strains)
Concentration:	0.03-8 µg/mL
Incubation Time:	6 days
Result:	Inhibited 7 strains of U. urealyticum with MIC range of 2-8 µg/mL.

## CUSTOMER VALIDATION

- Microb Pathog. 2023 Apr 22;106122.

See more customer validations on [www.MedChemExpress.com](http://www.MedChemExpress.com)

## REFERENCES

[1]. Dobson RA, et al. In vitro antimicrobial activity of rosoxacin against Neisseria gonorrhoeae, Chlamydia trachomatis, and Ureaplasma urealyticum. Antimicrob Agents Chemother. 1980 Nov;18(5):738-40.

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

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: [tech@MedChemExpress.com](mailto:tech@MedChemExpress.com)

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA