

Nemonoxacin

Chemical Properties

CAS No. : 378746-64-6

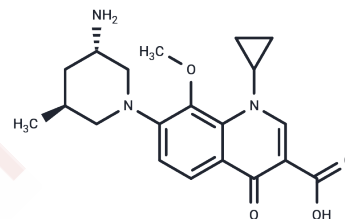
Formula: C₂₀H₂₅N₃O₄

Molecular Weight: 371.43

Store at low temperature

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Actual storage temperature shall be subject to the COA.



Biological Description

Description	Nemonoxacin (TG-873870) is an orally available non-fluorinated quinolone antibiotic with broad-spectrum antimicrobial activity against staphylococci, streptococci, and enterococci, as well as against <i>Neisseria gonorrhoeae</i> and <i>Haemophilus influenzae</i> . Nemonoxacin is used in the study of bacterial infections and community-acquired pneumonia.
Targets(IC50)	Antibacterial, Antibiotic
In vitro	Nemonoxacin (0-5.51 μ M; 24 hours) inhibits both methicillin-sensitive <i>Staphylococcus aureus</i> (MSSA) and methicillin-resistant <i>Staphylococcus aureus</i> (MRSA) with MIC ₉₀ values of 0.12 μ g/mL and 4 μ g/mL, respectively[1].
In vivo	In CD-1 ICR mice (18-22 g; mouse systemic infection model), Nemonoxacin (1.6-4.0 mg/kg; oral administration; 15 minutes and 6 hours after infection) exhibited antibacterial activity against various resistant <i>Staphylococcus aureus</i> infections[2].

Solubility Information

Solubility	DMSO: 1 mg/mL (2.69 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.6923 mL	13.4615 mL	26.923 mL
5 mM	0.5385 mL	2.6923 mL	5.3846 mL
10 mM	0.2692 mL	1.3461 mL	2.6923 mL
50 mM	0.0538 mL	0.2692 mL	0.5385 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Adam HJ, et al. In vitro activity of nemonoxacin, a novel nonfluorinated quinolone, against 2,440 clinical isolates. *Antimicrob Agents Chemother.* 2009 Nov;53(11):4915-20.

Li CR, et al. In vivo antibacterial activity of nemonoxacin, a novel non-fluorinated quinolone. *J Antimicrob Chemother.* 2010 Nov;65(11):2411-5.

Lauderdale TL, et al. Comparative in vitro activities of nemonoxacin (TG-873870), a novel nonfluorinated quinolone, and other quinolones against clinical isolates. *Antimicrob Agents Chemother.* 2010 Mar;54(3):1338-42.

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