



## Nemonoxacin malate

Cat. No.: HY-111023 CAS No.: 951163-60-3 Molecular Formula:  $C_{24}H_{31}N_3O_9$ Molecular Weight: 505.52

Antibiotic; Bacterial Target: Pathway: Anti-infection

Storage: 4°C, sealed storage, away from moisture

\* In solvent: -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)

**Product** Data Sheet

## **SOLVENT & SOLUBILITY**

In Vitro

DMSO: 100 mg/mL (197.82 mM; Need ultrasonic)

| Preparing<br>Stock Solutions | Solvent Mass<br>Concentration | 1 mg      | 5 mg      | 10 mg      |
|------------------------------|-------------------------------|-----------|-----------|------------|
|                              | 1 mM                          | 1.9782 mL | 9.8908 mL | 19.7816 mL |
|                              | 5 mM                          | 0.3956 mL | 1.9782 mL | 3.9563 mL  |
|                              | 10 mM                         | 0.1978 mL | 0.9891 mL | 1.9782 mL  |

Please refer to the solubility information to select the appropriate solvent.

In Vivo

- 1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 2.5 mg/mL (4.95 mM); Clear solution
- 2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.5 mg/mL (4.95 mM); Clear solution
- 3. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.5 mg/mL (4.95 mM); Clear solution

## **BIOLOGICAL ACTIVITY**

| Description               | Nemonoxacin (TG-873870) malate is a nonfluorinated quinolone antibiotic. Nemonoxacin malate has broad-spectrum activity against Gram-positive, Gram-negative and atypical pathogens. Nemonoxacin malate can inhibit drug-resistant Streptococcus pneumoniae and (HY-121544) Methicillin-resistant Staphylococcus aureus. Nemonoxacin malate can be used for the research of community-acquired pneumonia <sup>[1][2]</sup> . |
|---------------------------|--|
| IC <sub>50</sub> & Target | Quinolone  |
| In Vitro                  | Nemonoxacin has antibacterial activity against Chlamydia pneumoniae with MIC $_{90}$ s of 0.06 µg/mL $^{[1]}$ . Nemonoxacin has highly active against community-acquired MRSA (CA-MRSA) (MIC $_{90}$ : 0.5 and 0.06 µg/ml), and exerts limited   |

activity against (HY-B0356) <u>Ciprofloxacin</u>-resistant MRSA (MIC<sub>90</sub>: 1  $\mu$ g/ml), and (HY-B0671) <u>Vancomycin</u>-intermediate MRSA (MIC<sub>90</sub>: 2  $\mu$ g/ml)<sup>[2]</sup>.

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

## **REFERENCES**

[1]. Chotikanatis K, et al. In vitro activity of nemonoxacin, a novel nonfluorinated quinolone antibiotic, against Chlamydia trachomatis and Chlamydia pneumoniae. Antimicrob Agents Chemother. 2014;58(3):1800-1.

[2]. Lai CC, et al. Nemonoxacin (TG-873870) for treatment of community-acquired pneumonia. Expert Rev Anti Infect Ther. 2014 Apr;12(4):401-17.

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

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