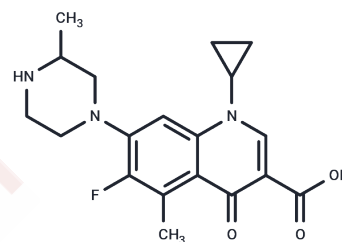


## Grepafloxacin

## Chemical Properties

|                   |   |
|-------------------|---|
| CAS No. :         | 119914-60-2   |
| Formula:          | C <sub>19</sub> H <sub>22</sub> FN <sub>3</sub> O <sub>3</sub>  |
| Molecular Weight: | 359.39  |
| Storage:          | Powder: -20°C for 3 years   In solvent: -80°C for 1 year<br>Actual storage temperature shall be subject to the COA. |



## Biological Description

|               |   |
|---------------|---|
| Description   | Grepafloxacin (OPC-17116) is a fluoroquinolone antibiotic that is administered orally. It possesses strong efficacy against community-acquired respiratory pathogens, notably Streptococcus pneumoniae. Grepafloxacin exhibits excellent tissue penetration and demonstrates a promising pharmacodynamic profile.   |
| Targets(IC50) | Others,Antibacterial,Antibiotic   |
| In vitro      | Grepafloxacin is a once-daily fluoroquinolone[2]. Grepafloxacin exhibits potent in vitro antibacterial activity against Gram-positive bacteria such as Streptococcus pneumoniae and high in vivo efficacy on the experimental systemic infections caused by the Gram-positive and -negative bacteria tested[4].   |
| In vivo       | Grepafloxacin (OPC-17116) (200 mg/kg; p.o.; Balb/c mice) displays good safety profile in terms of phototoxicity[2]. Grepafloxacin (p.o.; 25, 50, 100, and 200 mg/kg; 5 days/week for 4 weeks; Female C57BL6/J-Lyst bg-J/ mice/beige mice) has modest activities in both intranasal (IN) infection and intravenous (IV) Mycobacterium avium infection models[3]. |

## Preparing Stock Solutions

|       | 1mg       | 5mg        | 10mg       |
|-------|-----------|------------|------------|
| 1 mM  | 2.7825 mL | 13.9125 mL | 27.8249 mL |
| 5 mM  | 0.5565 mL | 2.7825 mL  | 5.565 mL   |
| 10 mM | 0.2782 mL | 1.3912 mL  | 2.7825 mL  |
| 50 mM | 0.0556 mL | 0.2782 mL  | 0.5565 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

- Efthymiopoulos C. Pharmacokinetics of grepafloxacin. *J Antimicrob Chemother.* 1997;40 Suppl A:35-43.
- Owen K. Comparative grepafloxacin phototoxicity in mouse skin. *J Antimicrob Chemother.* 1998;42(2):261-264.
- Cynamon MH, et al. The activity of grepafloxacin in two murine models of *Mycobacterium avium* infection. *J Infect Chemother.* 2004;10(3):185-188.
- Miyamoto H, et al. Synthesis and biological properties of substituted 1,4-dihydro-5-methyl-4-oxo-3-quinolinecarboxylic acids. *Bioorg Med Chem.* 1995;3(12):1699-1706.

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