

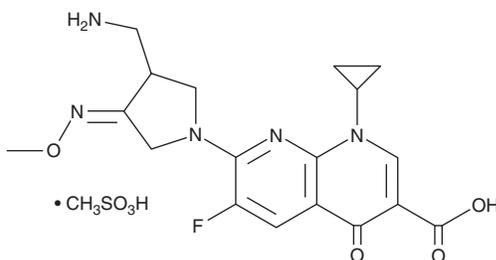
PRODUCT INFORMATION



Gemifloxacin (mesylate)

Item No. 21047

CAS Registry No.: 210353-53-0
Formal Name: 7-[(4Z)-3-(aminomethyl)-4-(methoxyimino)-1-pyrrolidiny]-1-cyclopropyl-6-fluoro-1,4-dihydro-4-oxo-1,8-naphthyridine-3-carboxylic acid, monomethanesulfonate
Synonyms: LB 20304a, SB 265805S
MF: C₁₈H₂₀FN₅O₄ • CH₃SO₃H
FW: 485.5
Purity: ≥98%
UV/Vis.: λ_{max}: 269, 341 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Gemifloxacin (mesylate) is supplied as a crystalline solid. A stock solution may be made by dissolving the gemifloxacin (mesylate) in the solvent of choice. Gemifloxacin (mesylate) is soluble in organic solvents such as DMSO and dimethyl formamide, which should be purged with an inert gas. The solubility of gemifloxacin (mesylate) in these solvents is approximately 15 and 10 mg/ml, respectively.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of gemifloxacin (mesylate) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of gemifloxacin (mesylate) in PBS, pH 7.2, is approximately 1 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Gemifloxacin is a fluoroquinolone antibiotic that is effective against *C. pneumoniae* and *M. tuberculosis* (MIC_{50s} = 0.25 and 8 µg/ml, respectively).^{1,2} Quinolones, including gemifloxacin, inhibit bacterial DNA gyrase and other topoisomerases.^{3,4} Formulations containing gemifloxacin are useful against respiratory tract infections, particularly community-acquired pneumonia and tuberculosis.^{1,5,6}

References

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2. Ruiz-Serrano, M.J., Alcalá, L., Martínez, L., et al. *Antimicrob. Agents Chemother.* **44(9)**, 2567-2568 (2000).
3. Collin, F., Karkare, S., and Maxwell, A. *Appl. Microbiol. Biotechnol.* **92(3)**, 479-497 (2011).
4. Weigel, L.M., Anderson, G.J., and Tenover, F.C. *Antimicrob. Agents Chemother.* **46(8)**, 2582-2587 (2002).
5. Grossman, R.F., Hsueh, P.-R., Gillespie, S.H., et al. *Int. J. Infect. Dis.* **18**, 14-21 (2014).
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WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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