

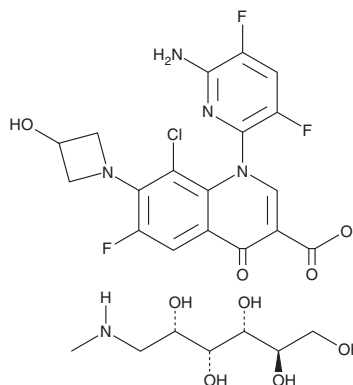
PRODUCT INFORMATION



Delafloxacin (meglumine)

Item No. 27935

CAS Registry No.: 352458-37-8
Formal Name: 1-deoxy-1-(methylamino)-D-glucitol, 1-(6-amino-3,5-difluoro-2-pyridinyl)-8-chloro-6-fluoro-1,4-dihydro-7-(3-hydroxy-1-azetidinyl)-4-oxo-3-quinolinecarboxylate (1:1)
Synonyms: ABT-492, RX-3341
MF: C₁₈H₁₂ClF₃N₄O₄ • C₇H₁₇NO₅
FW: 636.0
Purity: ≥98%
UV/Vis.: λ_{max}: 230, 291 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

Delafloxacin (meglumine) is supplied as a crystalline solid. A stock solution may be made by dissolving the delafloxacin (meglumine) in the solvent of choice, which should be purged with an inert gas. Delafloxacin (meglumine) is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of delafloxacin (meglumine) in these solvents is approximately 10 and 0.5 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 delafloxacin (meglumine) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of delafloxacin (meglumine) in PBS, pH 7.2, is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Delafloxacin is a broad-spectrum fluoroquinolone antibiotic.¹ It is active against *S. aureus*, *S. epidermidis*, *S. pneumoniae*, *S. pyogenes*, *E. faecalis*, *E. faecium*, *L. monocytogenes*, *E. coli*, *Salmonella*, *Shigella*, *C. freundii*, *Klebsiella*, *P. mirabilis*, *S. marcescens*, *S. maltophilia*, *H. influenzae*, *M. catarrhalis*, *N. gonorrhoeae*, *C. difficile*, and *C. perfringens* *in vitro* (MICs = <0.004-0.25 µg/ml). Delafloxacin (3-15.5 mg/kg) reduces lung bacterial burden in mouse models of *S. aureus* and *S. pneumoniae* lung infection.² Formulations containing delafloxacin have been used in the treatment of acute bacterial skin and skin structure infections.

References

1. Nilius, A.M., Shen, L.L., Hensy-Rudloff, D., *et al.* In vitro antibacterial potency and spectrum of ABT-492, a new fluoroquinolone. *Antimicrob. Agents Chemother.* **47(10)**, 3260-3269 (2003).
2. Lepak, A.J. and Andes, D.R. *In vivo* pharmacodynamic target assessment of delafloxacin against *Staphylococcus aureus*, *Streptococcus pneumoniae*, and *Klebsiella pneumoniae* in a murine lung infection model. *Antimicrob. Agents Chemother.* **60(8)**, 4764-4769 (2016).

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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