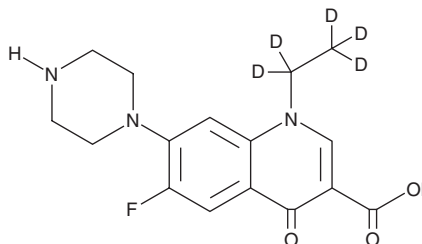


PRODUCT INFORMATION



Norfloxacin-d₅ Item No. 28521

CAS Registry No.: 1015856-57-1
Formal Name: 1-(ethyl-1,1,2,2,2-d₅)-6-fluoro-1,4-dihydro-4-oxo-7-(1-piperazinyl)-3-quinolinecarboxylic acid
MF: C₁₆H₁₃D₅FN₃O₃
FW: 324.4
Chemical Purity: ≥98% (Norfloxacin)
Deuterium Incorporation: ≥99% deuterated forms (d₁-d₅); ≤1% d₀
Supplied as: A 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

Norfloxacin-d₅ is intended for use as an internal standard for the quantification of norfloxacin (Item No. 25975) by GC- or LC-MS. The accuracy of the sample weight in this vial is between 5% over and 2% under the amount shown on the vial. If better precision is required, the deuterated standard should be quantitated against a more precisely weighed unlabeled standard by constructing a standard curve of peak intensity ratios (deuterated versus unlabeled).

Norfloxacin-d₅ is supplied as a solid. A stock solution may be made by dissolving the norfloxacin-d₅ in the solvent of choice, which should be purged with an inert gas. Norfloxacin-d₅ is slightly soluble (0.1-1 mg/ml) in chloroform and DMSO.

Description

Norfloxacin is a fluoroquinolone antibiotic that inhibits the growth of Gram-positive and Gram-negative bacteria (MICs = 4 and 1 µg/ml for *S. aureus* and *P. aeruginosa*, respectively).¹ It also inhibits the growth *S. pseudintermedius*, *S. aureus*, *E. coli*, *Pasturella*, and *S. canis* isolates from dogs (mean MIC₅₀s = 0.25, 1, 0.03, 1, and 1 µg/ml, respectively).² Topical administration of norfloxacin (0.1% v/v) reduces corneal ulcer size in a rabbit model of *P. aeruginosa* corneal infection. It also prevents encrusted cystitis in bladder and increases survival in a rat model of *Corynebacterium* group D2 infection when administered at a dose of 80 mg/kg per day.³ Formulations containing norfloxacin have been used to treat urinary tract and gynecological infections.

References

1. Darrell, R.W., Modak, S.M., and Fox, C.L., Jr. Norfloxacin and silver norfloxacin in the treatment of *Pseudomonas* corneal ulcer in the rabbit. *Trans. Am. Ophthalmol. Soc.* **82**, 75-91 (1984).
2. Awji, E.G., Damte, D., Lee, S.-J., et al. The *in vitro* activity of 15 antimicrobial agents against bacterial isolates from dogs. *J. Vet. Med. Sci.* **74**(8), 1091-1094 (2012).
3. Soriano, F., Rodriguez-Tudela, J.L., Castilla, C., et al. Treatment of encrusted cystitis caused by *Corynebacterium* group D2 with norfloxacin, ciprofloxacin, and teicoplanin in an experimental model in rats. *Antimicrob. Agents Chemother.* **35**(12), 2587-2590 (1991).

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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