

# PRODUCT INFORMATION



## Temafloxacin

Item No. 17352

**CAS Registry No.:** 108319-06-8  
**Formal Name:** 1-(2,4-difluorophenyl)-6-fluoro-1,4-dihydro-7-(3-methyl-1-piperazinyl)-4-oxo-3-quinolinecarboxylic acid

**Synonym:** A-62254

**MF:** C<sub>21</sub>H<sub>18</sub>F<sub>3</sub>N<sub>3</sub>O<sub>3</sub>

**FW:** 417.4

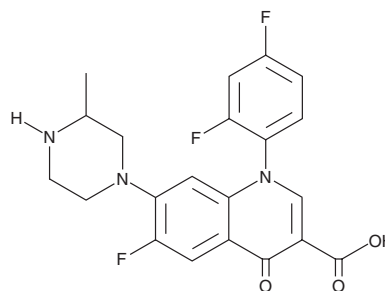
**Purity:** ≥95%

**UV/Vis.:** λ<sub>max</sub>: 278, 316, 328 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

Temafloxacin is supplied as a crystalline solid. A stock solution may be made by dissolving the temafloxacin in the solvent of choice. Temafloxacin is soluble in organic solvents such as DMSO and dimethyl formamide, which should be purged with an inert gas. The solubility of temafloxacin in these solvents is approximately 2 and 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 temafloxacin can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of temafloxacin in PBS, pH 7.2, is approximately 0.5 mg/ml. We do not recommend storing the aqueous solution for more than one day.

### Description

Temafloxacin is a fluoroquinolone antibiotic that acts as a DNA topoisomerase inhibitor.<sup>1</sup> It has broad antimicrobial activity against gram-positive and gram-negative bacteria, such as *S. pneumoniae*, *M. hominis*, and anaerobic bacteria, including *B. fragilis*.<sup>1</sup>

### Reference

1. Pankey, G.A. Temafloxacin: An overview. *Am. J. Med.* **91(6A)**, 166S-172S (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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#### CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD

ANN ARBOR, MI 48108 · USA

**PHONE:** [800] 364-9897

[734] 971-3335

**FAX:** [734] 971-3640

CUSTSERV@CAYMANCHEM.COM

WWW.CAYMANCHEM.COM