



LKT Laboratories, Inc.

Enoxacin

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## Product Information

**Product ID** E5358

**CAS No.** 74011-58-8

**Chemical Name** 1-Ethyl-6-fluoro-1,4-dihydro-4-oxo-7-(1-piperazinyl)-1,8-naphthyridine-3-carboxylic acid

**Synonym** Abenox, Bactidan, Comprecin, Flumark, Penetrex

**Formula** C<sub>15</sub>H<sub>17</sub>FN<sub>4</sub>O<sub>3</sub>

**Formula Wt.** 320.32

**Melting Point** 220-224 °C

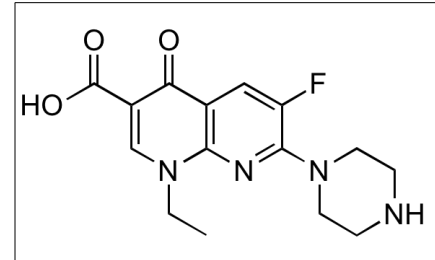
**Purity** ≥98%

**Solubility** Insoluble in water.

**Store Temp** Ambient

**Ship Temp** Ambient

**Description** Enoxacin is a fluoroquinolone antibiotic that is clinically used to treat urinary tract infections and gonorrhea; like other fluoroquinolones, enoxacin inhibits DNA gyrase and topoisomerase IV. Enoxacin displays antibacterial and anti-resorptive activities. In vivo, this compound decreases RANKL-induced JNK signaling, inhibiting osteoclast formation. Additionally, enoxacin inhibits vacuolar H<sup>+</sup> ATPase activity, preventing bone resorption.



**Bulk quantities available upon request**

Product ID	Size
E5358	500 mg
E5358	1 g
E5358	5 g

**References** Liu X, Qu X, Wu C, et al. The effect of enoxacin on osteoclastogenesis and reduction of titanium particle-induced osteolysis via suppression of JNK signaling pathway. *Biomaterials*. 2014 Jul;35(22):5721-30. PMID: 24767789.

Toro EJ, Zuo J, Ostrov DA, et al. Enoxacin directly inhibits osteoclastogenesis without inducing apoptosis. *J Biol Chem*. 2012 May 18;287(21):17894-904. PMID: 22474295.

Zuma AA, Cavalcanti DP, Maia MC, et al. Effect of topoisomerase inhibitors and DNA-binding drugs on the cell proliferation and ultrastructure of *Trypanosoma cruzi*. *Int J Antimicrob Agents*. 2011 May;37(5):449-56. PMID: 21292448.

Koseki N, Deguchi J, Yamashita A, et al. Establishment of a novel experimental protocol for drug-induced seizure liability screening based on a locomotor activity assay in zebrafish. *J Toxicol Sci*. 2014 Aug;39(4):579-600. PMID: 25056783.

**Caution:** This product is intended for laboratory and research use only. It is not for human or drug use.