



LKT Laboratories, Inc.

Moxifloxacin Hydrochloride

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Product Information

Product ID M5794

CAS No. 186826-86-8

Chemical Name 1-Cyclopropyl-6-fluoro-1,4-dihydro-8-methoxy-7- [(4aS,7aS)-octahydro-6H-pyrrolo[3,4-b]pyridin-6-yl]- 4-oxo-3-quinolinecarboxylic acid hydrochloride

Synonym Actura, Avalox, Avelox, Octegra, Proflox

Formula $C_{21}H_{24}FN_3O_4 \cdot HCl$

Formula Wt. 437.89

Melting Point 324-325°C

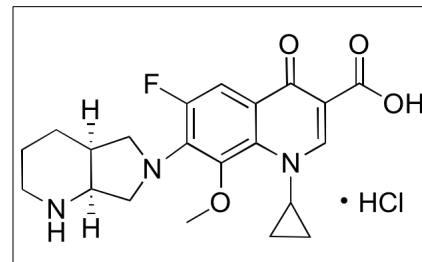
Purity ≥98%

Solubility Soluble in water (2.4 g/100 ml). Methanol, DMSO

Store Temp 4°C

Ship Temp Ambient

Description Moxifloxacin is a fluoroquinolone antibiotic commonly used to treat ocular infections such as bacterial conjunctivitis as well as sinus and lung infections such as pneumonia. Moxifloxacin displays antibacterial efficacy against both gram negative and gram positive bacteria, preventing DNA synthesis in bacterial pathogens by inhibiting topoisomerase IV and bacterial DNA gyrase. This compound is currently being examined as a conjunctive therapy with anticancer agents against several forms of cancer due to its topoisomerase II inhibition. Combining moxifloxacin with anticancer agents yields a cytotoxic drug sparing effect due to the synergism of the mechanisms of action between moxifloxacin and the anticancer drugs.



Pricing and Availability

Bulk quantities available upon request

Product ID	Size	List Price
M5794	25 mg	\$121.70
M5794	100 mg	\$217.20
M5794	500 mg	\$833.40
M5794	1 g	\$1362.90

References Wohlkonig A, Chan PF, Fosberry AP, et al. Structural basis of quinolone inhibition of type IIA topoisomerases and target-mediated resistance. *Nat Struct Mol Biol.* 2010 Sep;17(9):1152-3. PMID: 20802486.

Reuveni D, Halperin D, Shalit I, et al. Moxifloxacin enhances etoposide-induced cytotoxic, apoptotic and anti-topoisomerase II effects in a human colon carcinoma cell line. *Int J Oncol.* 2010 Aug;37(2):463-71. PMID: 20596674.

Reuveni D, Halperin D, Fabian I, et al. Moxifloxacin increases anti-tumor and anti-angiogenic activity of irinotecan in human xenograft tumors. *Biochem Pharmacol.* 2010 Apr 15;79(8):1100-7. PMID: 20025849.

Laponogov I, Sohi MK, Veselkov DA, et al. Structural insight into the quinolone-DNA cleavage complex of type IIA topoisomerases. *Nat Struct Mol Biol.* 2009 Jun;16(6):667-9. PMID: 19448616.

Stroman DW, Dajcs JJ, Cupp GA, et al. *In vitro and in vivo potency of moxifloxacin and moxifloxacin ophthalmic solution 0.5%, a new topical fluoroquinolone.* *Surv Ophthalmol.* 2005 Nov;50 Suppl 1:S16-31. PMID: 16257308.

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