



## Product Information

Product ID M5793

CAS No. 151096-09-2

Chemical Name

Synonym

Formula  $C_{21}H_{24}FN_3O_4$

Formula Wt. 401.43

Melting Point

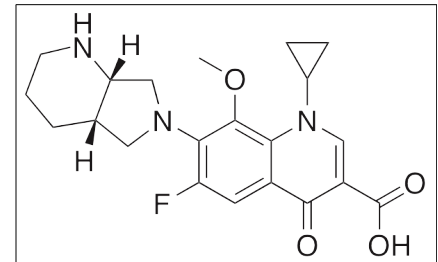
Purity  $\geq 98\%$

Solubility

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.



**Bulk quantities available upon request**

Product ID	Size
M5793	100 mg
M5793	500 mg
M5793	1 g

**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.