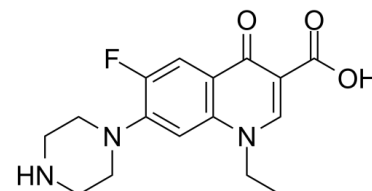


## Data Sheet

<b>Product Name:</b>	Norfloxacin
<b>Cat. No.:</b>	CS-1906
<b>CAS No.:</b>	70458-96-7
<b>Molecular Formula:</b>	C <sub>16</sub> H <sub>18</sub> FN <sub>3</sub> O <sub>3</sub>
<b>Molecular Weight:</b>	319.33
<b>Target:</b>	Bacterial
<b>Pathway:</b>	Anti-infection
<b>Solubility:</b>	DMSO : 5 mg/mL (15.66 mM; Need ultrasonic); H <sub>2</sub> O : < 0.1 mg/mL (insoluble)



### BIOLOGICAL ACTIVITY:

Norfloxacin (MK-0366) is a broad-spectrum antibiotic that is active against both Gram-positive and Gram-negative bacteria, which functions by inhibiting DNA gyrase. IC<sub>50</sub> & Target: DNA gyrase; Antibacterial<sup>[1][2]</sup>. **In Vitro:** Norfloxacin (MK-0366) is a synthetic chemotherapeutic antibacterial agent occasionally used to treat common as well as complicated urinary tract infections. Norfloxacin (MK-0366) is a broad-spectrum antibiotic that is active against both Gram-positive and Gram-negative bacteria. It functions by inhibiting DNA gyrase, a type II topoisomerase, and topoisomerase IV, enzymes necessary to separate bacterial DNA, thereby inhibiting cell division. There are currently three approved uses in the adult population (one of which is restricted) and the other ineffective due to bacterial resistance.

### References:

- [1]. Nelson JM, et al. Fluoroquinolone-resistant *Campylobacter* species and the withdrawal of fluoroquinolones from use in poultry: a public health success story. *Clin Infect Dis*. 2007 Apr 1;44(7):977-80. Epub 2007 Feb 14.
- [2]. Pade?skaia EN. Norfloxacin: more than 20 years of clinical use, the results and place among fluoroquinolones in modern chemotherapy for infections. *Antibiot Khimioter*. 2003;48(9):28-36.
- [3]. Rafalsky V, et al. Quinolones for uncomplicated acute cystitis in women. *Cochrane Database Syst Rev*. 2006 Jul 19;(3):CD003597.

### CAIndexNames:

3-Quinolonecarboxylic acid, 1-ethyl-6-fluoro-1,4-dihydro-4-oxo-7-(1-piperazinyl)-

### SMILES:

O=C(C1=CN(CC)C2=C(C=C(F)C(N3CCNCC3)=C2)C1=O)O

**Caution: Product has not been fully validated for medical applications. For research use only.**

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