

<b>Product Name:</b>	Enrofloxacin hydrochloride
<b>Product Number:</b>	E007
<b>CAS Number:</b>	112732-17-9
<b>Molecular Formula:</b>	$C_{19}H_{22}FN_3O_3 \cdot HCl$
<b>Molecular Weight:</b>	395.86
<b>Form:</b>	Powder
<b>Appearance:</b>	Almost White Crystalline Powder
<b>Solubility:</b>	Water: 10 mg/mL
<b>Source:</b>	Synthetic
<b>Elemental Analysis:</b>	Fluoride: $\geq 4.5\%$
<b>pH:</b>	3.5-4.5
<b>Storage Conditions:</b>	$< 30^\circ C$
<b>Description:</b>	<p>Enrofloxacin is a fluoroquinolone antibiotic commonly used in veterinary medicine. Enrofloxacin is slightly soluble in aqueous solution and enrofloxacin HCl is freely soluble at 10 mg/mL.</p>

TOKU-E offers two forms of enrofloxacin:

- [enrofloxacin \(E016\)](#)
- enrofloxacin HCl (E007)

**Poller et al.** used enrofloxacin HCl from TOKU-E to study "[Influence of different surface chemistries on the ultrasensitive on-chip detection of enrofloxacin in milk](#)"

<b>Mechanism of Action:</b>	Fluoroquinolone antibiotics target bacterial DNA gyrase, an enzyme which reduces DNA strain during replication. Because DNA gyrase is required during DNA replication, subsequent DNA synthesis and ultimately cell division is inhibited.
<b>Spectrum:</b>	Enrofloxacin is a broad spectrum antibiotic targeting a wide variety of gram positive and gram negative bacteria and a few <i>Mycoplasma</i> species.

**Microbiology Applications** Enrofloxacin is commonly used in clinical *in vitro* microbiological antimicrobial susceptibility tests (panels, discs, and MIC strips) against gram positive, gram negative, and certain *Mycoplasma* species. Medical microbiologists use AST results to recommend antibiotic treatment options for infected patients. Representative MIC values include:

- *Pseudomonas aeruginosa* 0.5 µg/mL – 2 µg/mL
- *Escherichia coli* 0.004 µg/mL – 0.03 µg/mL
- For a complete list of enrofloxacin MIC values, [click here](#).

**References:**

Wolfson, John S., and David C. Hooper. "The Fluoroquinolones: Structures, Mechanisms of Action and Resistance, and Spectra of Activity in Vitro." *American Society for Microbiology* 4th ser. 28 (1985): 581-86.

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