

Enrofloxacin PRODUCT DATA SHEET

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Product Name: Enrofloxacin

Product Number: E016

CAS Number: 93106-60-6

Molecular Formula: $C_{19}H_{22}FN_3O_3$

Molecular Weight: 359.39

Form: Powder

Appearance: Light yellow or yellow-orange powder

Solubility: Water: Slightly soluble

Source: Synthetic

Melting Point: 221-226°C

Storage Conditions: 2-8°C

Description: Enrofloxacin is a fluoroguinolone antibiotic commonly used in veterinary

medicine.

TOKU-E offers two forms of enrofloxacin, enrofloxacin (E016) and <u>enrofloxacin</u> HCI (E007). Enrofloxcin is slightly soluble in aqueous solution and enrofloxacin

HCl is freely soluble at 10 mg/mL.

Mechanism of Action: Fluoroguinolone 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.

Spectrum: Enrofloxacin is a broad spectrum antibiotic targeting a wide variety of gram

positive and gram negative bacteria and a few Mycoplasma 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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