Enrofloxacin
Item No. 20301

CAS Registry No.: 93106-60-6
Formal Name: 1-cyclopropyl-7-(4-ethyl-1-piperazinyl)-
6-fluoro-1,4-dihydro-4-oxo-3-quinolinecarboxylic acid
Synonyms: BAY-Vp 2674, ENR, PD 160788
MF: C_{19}H_{22}FN_{3}O_{3}
FW: 359.4
Purity: ≥98%
UV/Vis.: \( \lambda_{\text{max}} \) 280, 318 nm
Supplied as: A crystalline solid
Storage: Room temperature
Stability: As supplied, 2 years from the QC date provided on the Certificate of Analysis, when stored properly

Laboratory Procedures

Enrofloxacin is supplied as a crystalline solid. A stock solution may be made by dissolving the enrofloxacin in the solvent of choice. Enrofloxacin is soluble in the organic solvent dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of enrofloxacin in this solvent is approximately 10 mg/ml. Enrofloxacin is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, enrofloxacin should first be dissolved in DMF and then diluted with the aqueous buffer of choice. Enrofloxacin has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Enrofloxacin is a broad-spectrum fluoroquinolone antibiotic that is used primarily in veterinary medicine.\(^1,2\) It inhibits bacterial DNA gyrase.\(^3\) Enrofloxacin displays high bioavailability in most species and rapid absorption after oral, intramuscular, or subcutaneous administration.\(^2\) It has broad distribution in the animal, excellent tissue penetration, and a long serum half-life.\(^2\)

References