

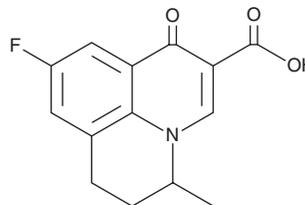
PRODUCT INFORMATION



Flumequine

Item No. 21645

CAS Registry No.: 42835-25-6
Formal Name: 9-fluoro-6,7-dihydro-5-methyl-1-oxo-1H,5H-benzo[*ij*]quinolizine-2-carboxylic acid
Synonym: (±)-Flumequine
MF: C₁₄H₁₂FNO₃
FW: 261.3
Purity: ≥98%
UV/Vis.: λ_{max}: 219, 230, 249, 325, 338 nm
Supplied as: A crystalline solid
Storage: Room temperature
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Flumequine is supplied as a crystalline solid. A stock solution may be made by dissolving the flumequine in the solvent of choice, which should be purged with an inert gas. Flumequine is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of flumequine in ethanol is approximately 0.2 mg/ml and approximately 10 mg/ml in DMSO and DMF.

Description

Flumequine is a fluoroquinolone antibiotic.¹ It is active against *S. aureus*, *S. pyogenes*, *B. subtilis*, *E. coli*, *P. aeruginosa*, *S. faecalis*, and *K. pneumoniae* (MICs = 1-100 µg/ml). Flumequine is also active against field isolates of *B. hyodysenteriae* (MICs = 6.25-200 µg/ml).² It inhibits DNA gyrase, disrupting supercoiling of bacterial DNA to block transcription and replication.³ *In vivo*, flumequine (50 mg/kg) increases survival in rat models of *P. vulgaris*-induced urinary tract infection and *P. mirabilis*-induced prostatitis.¹ Formulations containing flumequine have been used in the treatment of urinary tract infections in veterinary medicine.

Reference

1. Rohlffing, S.R., Gerster, J.R., and Kvam, D.C. Bioevaluation of the antibacterial flumequine for urinary tract use. *Antimicrob. Agents Chemother.* **10(1)**, 20-24 (1976).
2. Aller-Morán, L.M., Martínez-Lobo, F.J., Rubio, P., *et al.* Evaluation of the *in vitro* activity of flumequine against field isolates of *Brachyspira hyodysenteriae*. *Res. Vet. Sci.* **103**, 51-53 (2015).
3. Smith, J.T. The mode of action of 4-quinolones and possible mechanisms of resistance. *J. Antimicrob. Chemother.* **18 (Suppl. D)**, 21-29 (1986).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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