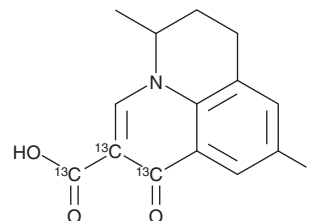


PRODUCT INFORMATION



Flumequine-¹³C₃ Item No. 34006

CAS Registry No.: 1185049-09-5
Formal Name: 9-fluoro-5-methyl-1-oxo-6,7-dihydro-1H,5H-pyrido[3,2,1-ij]quinoline-2-carboxylic-1,2-¹³C₂ acid-¹³C
Synonym: (±)-Flumequine-¹³C₃, R-802-¹³C₃
MF: C₁₁[¹³C]₃H₁₂FNO₃
FW: 264.2
Purity: ≥98%
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years



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

Laboratory Procedures

Flumequine-¹³C₃ is intended for use as an internal standard for the quantification of flumequine (Item No. 21645) by GC- or LC-MS. The accuracy of the sample weight in this vial is between 5% over and 2% under the amount shown on the vial. If better precision is required, the deuterated standard should be quantitated against a more precisely weighed unlabeled standard by constructing a standard curve of peak intensity ratios (deuterated versus unlabeled).

Flumequine-¹³C₃ is supplied as a solid. A stock solution may be made by dissolving the flumequine-¹³C₃ in the solvent of choice, which should be purged with an inert gas. Flumequine-¹³C₃ is soluble in acetonitrile:methanol (1:1) and DMSO.

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.

References

1. Rohlfing, 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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