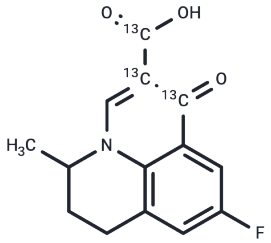
Data Sheet (Cat.No.T36021)

TargetMol

Flumequine-13C3

Chemical Properties



CAS No. : 1185049-09-5

Formula: C14H12FNO3

Molecular Weight: 264.229

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

Biological Description

Description	Flumequine-13C3 is intended for use as an internal standard for the quantification of flumequine by GC- or LC-MS. Flumequine (T1060) is a fluoroquinolone antibiotic.1It is active againstS. aureus, S. pyogenes, B. subtilis, E. coli, P. aeruginosa, S. faecalis, andK. pneumoniae (MICs = 1-100 μg/ml). Flumequine (T1060) is also active against field isolates of B. hyodysenteriae (MICs = 6.25-200 μg/ml).2It inhibits DNA gyrase, disrupting supercoiling of bacterial DNA to block transcription and replication.3
Targets(IC50)	Antibacterial,Antibiotic,Topoisomerase
In vivo	In vivo, flumequine (50 mg/kg) increases survival in rat models ofP. vulgaris-induced urinary tract infection andP. mirabilis-induced prostatitis.1Formulations containing flumequine have been used in the treatment of urinary tract infections in veterinary medicine.

Solubility Information

Solubility	Acetonitrile:Methanol (1:1): Soluble DMSO: Soluble (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.7846 mL	18.9229 mL	37.8458 mL
5 mM	0.7569 mL	3.7846 mL	7.5692 mL
10 mM	0.3785 mL	1.8923 mL	3.7846 mL
50 mM	0.0757 mL	0.3785 mL	0.7569 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Rohlfing, S.R., Gerster, J.R., and Kvam, D.C.Bioevaluation of the antibacterial flumequine for urinary tract useAntimicrob. Agents Chemother.10(1)20-24(1976)
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 hyodysenteriaeRes. Vet. Sci.10351-53(2015)
Smith, J.T.The mode of action of 4-quinolones and possible mechanisms of resistanceJ. Antimicrob. Chemother.18 (Suppl. D)21-29(1986)