Ofloxacin-d_3

Cat. No.: HY-B0125S

CAS No.: 1173147-91-5

Molecular Formula: $C_{18}H_{17}D_3FN_3O_4$

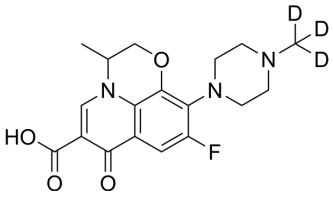
Molecular Weight: 364.39

Target: Antibiotic; Endogenous Metabolite; Bacterial; Orthopoxvirus; Isotope-Labeled Compounds

Pathway: Anti-infection; Metabolic Enzyme/Protease; Others

Storage:

Powder	-20°C	3 years
In solvent	-80°C	6 months
	-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 6.25 mg/mL (17.15 mM; ultrasonic and warming and heat to 60°C)
DMF : ≥ 2 mg/mL (5.49 mM)
DMSO : ≥ 2 mg/mL (5.49 mM)
DMSO:PBS (pH 7.2) (1:9) : ≥ 0.1 mg/mL (0.27 mM)
* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	2.7443 mL	13.7216 mL	27.4431 mL
5 mM	0.5489 mL	2.7443 mL	5.4886 mL
10 mM	0.2744 mL	1.3722 mL	2.7443 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 0.62 mg/mL (1.70 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 0.62 mg/mL (1.70 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Ofloxacin-d_3 is the deuterium labeled Ofloxacin[1].

In Vitro

Stable heavy isotopes of hydrogen, carbon, and other elements have been incorporated into drug molecules, largely as tracers for quantitation during the drug development process. Deuteration has gained attention because of its potential to affect the pharmacokinetic and metabolic profiles of drugs[75].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. Ann Pharmacother. 2019;53(2):211-223.

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