Ormetoprim

Cat. No.: HY-121466

CAS No.: 6981-18-6

Molecular Formula: $C_{14}H_{18}N_4O_2$

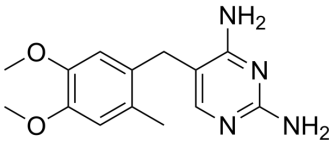
Molecular Weight: 274.32

Target: Antibiotic

Pathway: Anti-infection

Storage: -20°C, protect from light

* In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 25 mg/mL (91.13 mM; ultrasonic and warming and heat to 60°C)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	3.6454 mL	18.2269 mL	36.4538 mL
	5 mM	0.7291 mL	3.6454 mL	7.2908 mL
	10 mM	0.3645 mL	1.8227 mL	3.6454 mL

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

BIOLOGICAL ACTIVITY

Description

Ormetoprim is a veterinary antimicrobial which commonly used in aquaculture and poultry industries. Ormetoprim can be used to prevent the spread of disease in freshwater aquaculture and promote growth in farm animals[1][2].

In Vivo

Ormetoprim (8.3 mg/kg; i.p.) exhibits absorption half-life (5.4 h), elimination half-life (7.5 h) and C_{max} (1.2±0.2 μg/mL)[3]. Ormetoprim (8.3 mg/kg; p.o.) exhibits absorption half-life (3.9 h), elimination half-life (3.9 h), C_{max} (1.6±0.4 μg/mL) and oral availability (78.5%) relative to intraperitoneal administration[3].

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

Animal Model:	Hybrid striped bass (565-805 g)[3]
Dosage:	50 mg/kg Sulfadimethoxine and Ormetoprim in a 5:1 ratio (Pharmacokinetic Analysis)
Administration:	I.p. and p.o. administration
Result:	I.p.: $t_{1/2(elim)}$=7.5 h; $t_{1/2(abs)}$=5.4 h; C_{max}=1.2 μg/mL. P.o.: $t_{1/2(elim)}$=3.9 h; $t_{1/2(abs)}$=3.9 h; C_{max}=1.6 μg/mL; F=78.5%.

REFERENCES

[1]. Sanders SM, et, al. Sorption of the veterinary antimicrobials sulfadimethoxine and ormetoprim in soil. J Environ Qual. 2008 Jun 23; 37(4): 1510-8.

[2]. Guerard JJ, et, al. Photodegradation of ormetoprim in aquaculture and stream-derived dissolved organic matter. J Agric Food Chem. 2012 Oct 3; 60(39): 9801-6.

[3]. Bakal RS, et, al. Pharmacokinetics of sulfadimethoxine and ormetoprim in a 5:1 ratio following intraperitoneal and oral administration, in the hybrid striped bass (Morone chrysops x Morone saxitalis). J Vet Pharmacol Ther. 2004 Feb; 27(1): 1-6.

Caution: Product has not been fully validated for medical applications. For research use only.

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