Sulfaguanidine

Cat. No.: HY-B1267

CAS No.: 57-67-0

Molecular Formula: $C_7H_{10}N_4O_2S$

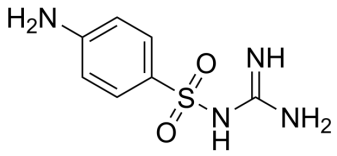
Molecular Weight: 214.24

Target: Bacterial; Antibiotic

Pathway: Anti-infection

Storage:

Powder	-20°C	3 years
	4°C	2 years
In solvent	-80°C	2 years
	-20°C	1 year



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (466.77 mM; Need ultrasonic)

H_2O : 3.33 mg/mL (15.54 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	4.6677 mL	23.3383 mL	46.6766 mL
	5 mM	0.9335 mL	4.6677 mL	9.3353 mL
	10 mM	0.4668 mL	2.3338 mL	4.6677 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: ≥ 2.5 mg/mL (11.67 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (11.67 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (11.67 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Sulfaguanidine is an orally active antimicrobial agent/antibiotic of sulfonamide class. Sulfaguanidine can be used for the research of enteric infections such as bacillary dysentery[1][2].

In Vivo

Sulfaguanidine (2.5 mg/kg; i.v.) exhibits CL_t (adult 0.29, neonate 0.14 L/h/kg), $AUC_{0-\infty}$ (adult 8.18, neonate 20.46 μg•h/mL), and Vd_{ss} (adult 0.65, neonate 0.59 L/kg) in rats[3].

Sulfaguanidine (2.5 mg/kg; p.o.) exhibits absolute bioavailability (adult 12.76%, neonate 57.86%), C_{max} (adult 0.41, neonate

	3.56 μg/mL), and T_{max} (adult 1.67, neonate 1.50 h) in rats[2]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Mizuno N, et, al. Gastrointestinal absorption of sulfaguanidine in neonatal and adult rats. J Pharmacobiodyn. 1986 Oct;9(10):787-92.

[2]. LOWELL A, et, al. THE USE OF SULFAGUANIDINE IN THE TREATMENT OF DYSENTERY CARRIERS. JAMA. 1942 Apr; 118(15):1268-1271.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA