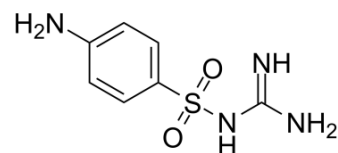


## Sulfaguanidine

<b>Cat. No.:</b>	HY-B1267	
<b>CAS No.:</b>	57-67-0	
<b>Molecular Formula:</b>	C <sub>7</sub> H <sub>10</sub> N <sub>4</sub> O <sub>2</sub> S	
<b>Molecular Weight:</b>	214.24	
<b>Target:</b>	Bacterial; Antibiotic	
<b>Pathway:</b>	Anti-infection	
<b>Storage:</b>	Powder	-20°C 3 years 4°C 2 years
	In solvent	-80°C 6 months -20°C 1 month



### SOLVENT & SOLUBILITY

#### In Vitro

DMSO : 100 mg/mL (466.77 mM; Need ultrasonic)  
H<sub>2</sub>O : 3.33 mg/mL (15.54 mM; Need ultrasonic)

	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
Preparing Stock Solutions	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

- 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
- 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
- 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<sup>[1][2]</sup>.

#### In Vivo

Sulfaguanidine (2.5 mg/kg; i.v.) exhibits CL<sub>t</sub> (adult 0.29, neonate 0.14 L/h/kg), AUC<sub>0-∞</sub> (adult 8.18, neonate 20.46 μg·h/mL), and Vd<sub>ss</sub> (adult 0.65, neonate 0.59 L/kg) in rats<sup>[3]</sup>.  
Sulfaguanidine (2.5 mg/kg; p.o.) exhibits absolute bioavailability (adult 12.76%, neonate 57.86%), C<sub>max</sub> (adult 0.41, neonate

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3.56 µg/mL), and T<sub>max</sub> (adult 1.67, neonate 1.50 h) in rats<sup>[2]</sup>.

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

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## REFERENCES

[1]. Mizuno N, et, al. Gastrointestinal absorption of sulfaguandine 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.

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

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