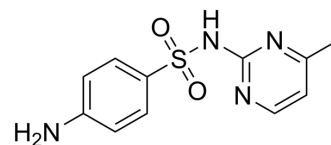


Sulfamerazine

Cat. No.:	HY-B0512		
CAS No.:	127-79-7		
Molecular Formula:	C ₁₁ H ₁₂ N ₄ O ₂ S		
Molecular Weight:	264.3		
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 (378.36 mM)
 H₂O : < 0.1 mg/mL (insoluble)
 * "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
	1 mM	3.7836 mL	18.9179 mL	37.8358 mL
	5 mM	0.7567 mL	3.7836 mL	7.5672 mL
	10 mM	0.3784 mL	1.8918 mL	3.7836 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 (9.46 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil
 Solubility: ≥ 2.5 mg/mL (9.46 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Sulfamerazine (RP-2632) is a sulfonamide antibacterial. Sulfamerazine, the monomethyl derivative of sulfadiazine, is 2-sulfanilamido-4-methylpyrimidine. Sulfamerazine is a sulfonamide drug that inhibits bacterial synthesis of dihydrofolic acid by competing with para-aminobenzoic acid (PABA) for binding to dihydropteroate synthesizes^[1].

IC₅₀ & Target

Antibacterial

In Vitro

Sulfamerazine is bacteriostatic in nature. Inhibition of dihydrofolic acid synthesis decreases the synthesis of bacterial nucleotides and DNA^[1].

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

CUSTOMER VALIDATION

- Patent. US20230147129A1.

See more customer validations on www.MedChemExpress.com

REFERENCES

[1]. Aday B, et al. Synthesis of novel sulfonamide analogs containing sulfamerazine/sulfaguanidine and their biological activities. J Enzyme Inhib Med Chem. 2016 Dec;31(6):1005-10.

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

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