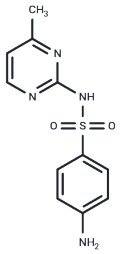
Data Sheet (Cat.No.T0913)

TargetMol

Sulfamerazine

Chemical Properties



CAS No. : 127-79-7

Formula: C11H12N4O2S

Molecular Weight: 264.30

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

Biological Description

Description	Sulfamerazine (RP2632) is a long-acting sulfanilamide antibacterial agent. Sulfamerazine inhibits bacterial synthesis of dihydrofolic acid by competing with para-aminobenzoic acid (PABA) for the binding site on dihydropteroate synthase.
Targets(IC50)	Antibacterial,Antibiotic,Autophagy
In vitro	Sulfamerazine significantly affects the lifespan of rats, markedly prolonging the life of male hamsters. The maximum body weight of all rats fed with sulfamerazine exceeded that of the control group. After oral administration of sulfamerazine, significant alterations in the shape of the concentration-time curve due to age were observed, strongly indicating absorption deficiencies within the first week after birth in lambs.
In vivo	Sulfamerazine exhibits a bi-exponential decay in water and a tri-exponential decay in cyclodextrin (CD) solutions. The resonance of aromatic protons in Sulfamerazine indicates a significant upfield shift, suggesting that the aniline ring is deeply encapsulated within the CD cavity.

Solubility Information

Solubility	DMSO: 60 mg/mL (227.01 mM),Sonication is recommended. Ethanol: < 1 mg/mL (insoluble or slightly soluble), (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 2 mg/mL (7.57 mM),Sonication is recommended. *Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.*

Preparing Stock Solutions

	1mg	5mg	10mg
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
50 mM	0.0757 mL	0.3784 mL	0.7567 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Rajendiran N, et al. Spectrochim Acta A Mol Biomol Spectrosc, 2014, 124, 441-450.
De Backer P, et al. Am J Vet Res, 1982, 43(10), 1744-1751.
Sperling GA, et al. Gerontology, 1978, 24(3), 220-224.