Sulfanilamide

Cat. No.: HY-B0242

CAS No.: 63-74-1

Molecular Formula: $C_6H_8N_2O_2S$

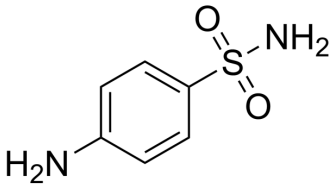
Molecular Weight: 172.2

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 (580.72 mM; Need ultrasonic)

H_2O : 10 mg/mL (58.07 mM; Need ultrasonic)

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	5.8072 mL	29.0360 mL	58.0720 mL
5 mM	1.1614 mL	5.8072 mL	11.6144 mL
10 mM	0.5807 mL	2.9036 mL	5.8072 mL

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

In Vivo

1. Add each solvent one by one: PBS
   Solubility: 33.33 mg/mL (193.55 mM); Clear solution; Need ultrasonic
2. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.5 mg/mL (14.52 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (14.52 mM); Clear solution
4. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (14.52 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

ulfanilamide (Sulphanilamide) is a potent and orally active sulfonamide antibiotic and can be a major intermediate of sulfamethoxazole biodegradation. Sulfanilamide also is a carbonic anhydrase inhibitor. Sulfanilamide shows inhibition on virus of lymphogranuloma venereum[1][2][3][4].

In Vivo	Sulfanilamide (500 mg/kg; p.o.; daily for 5 days) shows potent anti-infection activity in albino mice caused by 51. pneumoniae[2]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Liao X, et al. Antibiotic sulfanilamide biodegradation by acclimated microbial populations. Appl Microbiol Biotechnol. 2016 Mar;100(5):2439-47.

[2]. Padeĭskaia EN, et al. Sravnitel'naia aktivnost' depo-sul'fanilamidov pri éksperimental'noĭ infektsii mysheĭ, vyzvannoĭ K1. pneumoniae [Comparative activity of depot sulfanilamides in experimental infection in mice caused by K1. pneumoniae]. Antibiotiki. 1980 Mar;25(3):193-8.

[3]. T. MANN, et al. Sulphanilamide as a Specific Inhibitor of Carbonic Anhydrase. Nature, 1940, 146, 164-165.

[4]. Findlay GM. The Action of Sulphanilamide on the Virus of Lymphogranuloma Venereum. Br J Exp Pathol. 1940 Dec;21(6):356–60.

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