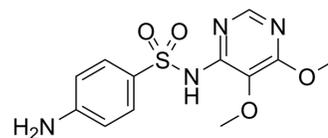


Sulfadoxine

Cat. No.:	HY-B0439		
CAS No.:	2447-57-6		
Molecular Formula:	C ₁₂ H ₁₄ N ₄ O ₄ S		
Molecular Weight:	310.33		
Target:	Parasite; HIV; Antibiotic; Endogenous Metabolite		
Pathway:	Anti-infection; Metabolic Enzyme/Protease		
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 (322.24 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	3.2224 mL	16.1119 mL	32.2238 mL
	5 mM	0.6445 mL	3.2224 mL	6.4448 mL
	10 mM	0.3222 mL	1.6112 mL	3.2224 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 (8.06 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
 Solubility: ≥ 2.5 mg/mL (8.06 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil
 Solubility: ≥ 2.5 mg/mL (8.06 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Sulfadoxine(Sulphadoxine) is a long acting sulfonamide that is used, usually in combination with other agents, for respiratory, urinary tract and malarial infections. Sulfadoxine inhibits HIV replication in peripheral blood mononuclear cells.

IC₅₀ & Target

Plasmodium

In Vitro

Sulfadoxine(Sulphadoxine) is an ultra-long-lasting sulfonamide. Sulfadoxine is often used in combination with pyrimethamine to treat or prevent malaria. Both drugs are antifolates; they inhibit the production of enzymes involved in the synthesis of folic acid within the parasites. Either drug by itself is only moderately effective in treating malaria, because the parasite Plasmodium falciparum may be able to use exogenous folic acid, i.e. folic acid which is present in the parasite's environment, while in combination, the two substances have a synergistic effect which outbalances that ability [1, 2]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. http://www.malaria-ipca.com/sulphadoxine_pyrimethamine.html

[2]. <http://en.wikipedia.org/wiki/Sulfadoxine/pyrimethamine>

[3]. D'Alessandro S, et al. The Use of Antimalarial Drugs against Viral Infection. Microorganisms. 2020 Jan 8;8(1). pii: E85.

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

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