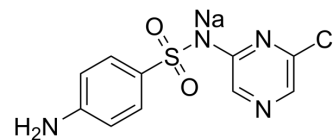


Sulfaclozine sodium

Cat. No.:	HY-19285A
CAS No.:	23307-72-4
Molecular Formula:	C ₁₀ H ₈ ClN ₄ NaO ₂ S
Molecular Weight:	306.7
Target:	Bacterial; Parasite; Antibiotic
Pathway:	Anti-infection
Storage:	4°C, sealed storage, away from moisture * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



SOLVENT & SOLUBILITY

In Vitro

H₂O : 50 mg/mL (163.03 mM; Need ultrasonic)

Concentration	Solvent	Mass		
		1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM	3.2605 mL	16.3026 mL	32.6051 mL
	5 mM	0.6521 mL	3.2605 mL	6.5210 mL
	10 mM	0.3261 mL	1.6303 mL	3.2605 mL

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

BIOLOGICAL ACTIVITY

Description

Sulfaclozine sodium (Sulfachloropyrazine sodium) is an efficacious sulphonamide derivative with antibacterial and anticoccidial effects. Sulfaclozine sodium is commonly used for the treatment of various poultry diseases (particularly, collibacteriosis, fowl cholera and coccidiosis)^[1].

IC₅₀ & Target

Coccidia

In Vitro

The elimination of Sulfaclozine in the three systems: UV/TiO₂, UV/K₂S₂O₈, and UV/TiO₂/K₂S₂O₈. Sulfaclozine is weakly adsorbed on the surface of TiO₂ at pH 7 (< 5%) but efficiently eliminated with the following three systems: UV/TiO₂, UV/K₂S₂O₈, and UV/TiO₂/K₂S₂O₈ in ultra pure water. Moreover, 12 of Sulfaclozine by-products are identified and reaction pathways show that, in addition of *OH and SO₄*⁻ radicals, the conduction-band electrons are responsible for the formation of some main by-products either directly or by the formation of superoxide radicals^[2].

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

In Vivo

Sulfaclozine (60 mg/kg; intravenous injection or oral administration; male broiler chickens) can be used primarily for the treatment of parasitic and microbial infections of the digestive tract rather than for the treatment of systemic infections^[1].

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

Animal Model:	14 male broiler chickens (30-day-old) ^[1]
Dosage:	60 mg/kg
Administration:	Intravenous injection or oral administration (Pharmacokinetic Analysis)
Result:	Serum drug concentrations at 0.083, 0.50, 2, 6, 24 and 72h were determined to be 99.62, 83.50, 72.68, 58.43, 38.66 and 13.14 µg/mL, respectively, by intravenous injection. By oral administration were determined as 4.33, 7.95, 16.46, 22.88, 16.03 and 5.74 µg/mL, respectively.

REFERENCES

[1]. Sentepe I, et al. Pharmacokinetic of sulfaclozine in broiler chickens. Food Chem Toxicol. 2010 Jan;48(1):448-451.

[2]. Ismail L, et al. Effect of water constituents on the degradation of sulfaclozine in the three systems: UV/TiO₂, UV/K₂S₂O₈, and UV/TiO₂/K₂S₂O₈. Environ Sci Pollut Res Int. 2018 Jan;25(3):2651-2663.

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

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