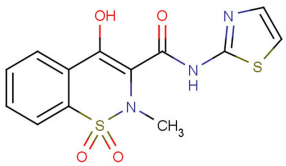
Data Sheet (Cat.No.T16950)

TargetMol
A DRUG SCREENING EXPERT

Sudoxicam

Chemical Properties



CAS No.:	34042-85-8
Formula:	C13H11N3O4S2
Molecular Weight:	337.37
Appearance:	N/A
Storage:	0-4℃ for short term (days to weeks), or -20℃ for long term (months).

Biological Description

Description	Sudoxicam is a reversible and orally active COX antagonist. Sudoxicam has potent anti-inflammatory, anti-edema, and antipyretic activity.
Targets(IC_{50})	COX: None
In vitro	Sudoxicam demonstrates NADPH-dependent covalent binding to human liver microsomes. With addition of glutathione (GSH) in microsomal incubations, about half of the covalent incorporation of Sudoxicam is blocked by addition of GSH. In vitro, Sudoxicam underwent the oxidative thiazole-open biotransformation, resulting in the formation of acyl thiourea and the subsequently hydroxylated metabolite [1][3].
In vivo	Sudoxicam inhibits the erythema caused by ultraviolet irradiation in the guinea pig. Sudoxicam (0.1 mg/kg, p.o,) significantly inhibited edema formation in the intact rat. Sudoxicam (3.3 mg/kg, i.p.) is capable of counteracting the pyrexia induced by the intraperitoneal injection of typhoid/paratyphoid vaccine in rats, maintaining body temperature about that of uninjected control rats. Sudoxicam (1-10 mg/kg; p.o.; daily; for 7 days; rats) treatment effective reduces plasma inflammation units, reduces the swelling of inflamed hind-paws, and restores toward normal the daily gain in body weight. The plasma half-life of Sudoxicam ranged between 8 hours (monkey), 13 hours (rat), and 60 hours (dog) [2].

Solubility Information

Solubility	< 1 mg/ml refers to the product slightly soluble or insoluble

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.964 mL	14.821 mL	29.641 mL
5 mM	0.593 mL	2.964 mL	5.928 mL
10 mM	0.296 mL	1.482 mL	2.964 mL
50 mM	0.059 mL	0.296 mL	0.593 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. The storage conditions and period of the stock solution: - 80 ℃ for 6 months; - 20 ℃ for 1 month. Please use it as soon as possible.

Reference

1. Obach RS, et al. In vitro metabolism and covalent binding of enol-carboxamide derivatives and anti-inflammatory agents sudoxicam and meloxicam: insights into the hepatotoxicity of sudoxicam. Chem Res Toxicol. 2008 Sep;21(9):1890-9.
2. Wiseman EH, et al. Anti-inflammatory and pharmacokinetic properties of sudoxicam N-(2-thiazolyl)-4-hydroxy-2-methyl-2H-1,2-benzothiazine-3-carboxamide 1,1-dioxide. Biochem Pharmacol. 1972 Sep 1;21(17):2323-34.
3. Zhi-Yi Zhang. Sudoxicam. Handbook of Metabolic Pathways of Xenobiotics. September 2014.

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