

Product Data Sheet

Product Name: Sudoxicam

Cat. No.: GC64940

Chemical Properties

Cas. No. 34042-85-8

Formula C₁₃H₁₁N₃O₄S₂

M.Wt 337.37

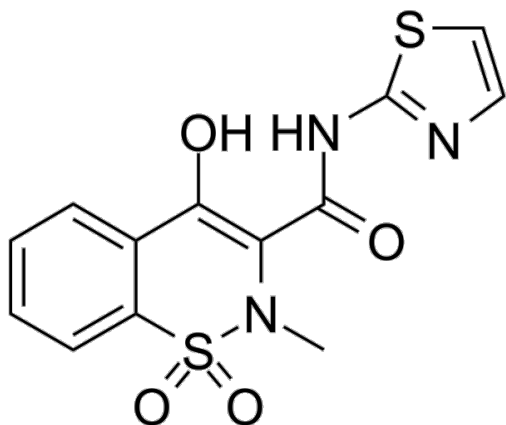
Solubility DMSO : 83.33 mg/mL (247.00 mM; ultrasonic and warming and heat to 80°C)

Storage Store at -20°C

General tips For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.

Structure



Background

Sudoxicam is a reversible and orally active COX antagonist and a non-steroidal anti-inflammatory drug (NSAID) from the enol-carboxamide class. Sudoxicam has potent anti-inflammatory, anti-edema and antipyretic activity[1][2][3].

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

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

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Sudoxicam is blocked by addition of GSH[1]. Metabolite identification studies on [14C]-Sudoxicam in NADPH-supplemented human liver microsomes indicated that the primary route of metabolism involved a P450-mediated thiazole ring scission to the corresponding acylthiourea metabolite (S3), a well-established pro-toxin[1]. In vitro, Sudoxicam underwent the oxidative thiazole-open biotransformation, resulting in the formation of an acylthiourea and the subsequent hydroxylated metabolite[3].

Sudoxicam (1-10 mg/kg; oral administration; daily; for 7 days; rats) treatment effectively reduces plasma inflammation units, reduces the swelling of inflamed hind-paws and restores toward normal the daily gain in body weight[2]. In the intact rat, Sudoxicam significantly inhibited edema formation at doses as low as 0.1 mg/kg, p.o[2]. Sudoxicam inhibits the erythema caused by ultraviolet irradiation in the guinea pig. 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[2]. The plasma half-life of Sudoxicam ranged between 8 hours (monkey), 13 hours (rat), and 60 hours (dog)[2].

[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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