Tinoridine

Cat. No.: HY-W032848

CAS No.: 24237-54-5

Molecular Formula: $C_{17}H_{20}N_2O_2S$

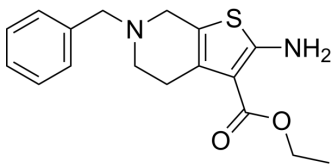
Molecular Weight: 316.42

Target: COX

Pathway: Immunology/Inflammation

Storage: -20°C, protect from light

* In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 125 mg/mL (395.04 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	3.1604 mL	15.8018 mL	31.6036 mL
	5 mM	0.6321 mL	3.1604 mL	6.3207 mL
	10 mM	0.3160 mL	1.5802 mL	3.1604 mL

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

BIOLOGICAL ACTIVITY

Description

Tinoridine (Y-3642) is an orally active non-steroidal anti-inflammatory agent with potent antiperoxidative ability and radical scavenger activity. Tinoridine acts function by inhibiting COX enzyme, involves in hepatotoxicity inhibition. [1][2][3].

In Vitro

Tinoridine (10-100 μM) exerts effect on stability of rat liver and kidney lysosomes, and liver parenchymal cells[3].

Tinoridine (1, 10, and 100 μM; 30 min) inhibits spontaneous release of acid phosphatase from liver lymomoses in vitro[3].

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

In Vivo

Tinoridine (100 mg/kg; p.o.; single dose) inhibits CCl_4 hepatotoxicity in rats, with a strong control of the CCl4-induced enzyme activities[2].

Tinoridine (100 mg/kg; i.p.; single dose) protects the stability of rat liver and kidney lysosomes in vivo[3].

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

Animal Model:	Male Wistar rats (180-220 g)[2]
Dosage:	100 mg/kg

Administration:	Oral gavage; single dose; 1 hour before CCl_4 (i.p.; 0.25 mL/kg) treatment
Result:	Inhibited the CCl_4-induced enzyme activities increase of serum glutamic-oxaloacetic transaminase and glutamic-pyruvic transaminase, and also rescued the liver microsomal cytochrome P-450 and glucose-6-phosphatase activities.

REFERENCES

[1]. da Cruz RMD, et al. Thiophene-Based Compounds with Potential Anti-Inflammatory Activity. Pharmaceuticals (Basel). 2021 Jul 19;14(7):692.

[2]. Yasuda H, et al. The protective effect of tinoridine against carbon tetrachloride hepatotoxicity. Toxicol Appl Pharmacol. 1980 Mar 15;52(3):407-13.

[3]. Goto K, et al. Effect of tinoridine on stability of rat liver and kidney lysosomes, and liver parenchymal cells. Biochem Pharmacol. 1977 Jan 1;26(1):11-8.

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