Trichlormethiazide

Cat. No.: HY-B0235

CAS No.: 133-67-5

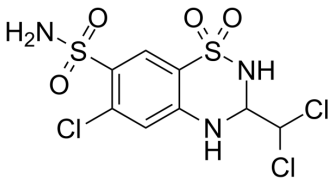
Molecular Formula: $C_8H_8Cl_3N_3O_4S_2$

Molecular Weight: 380.66

Target: Others

Pathway: Others

Storage: 4°C, protect from light
* In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 150 mg/mL (394.05 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	2.6270 mL	13.1351 mL	26.2702 mL
	5 mM	0.5254 mL	2.6270 mL	5.2540 mL
	10 mM	0.2627 mL	1.3135 mL	2.6270 mL

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

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.5 mg/mL (6.57 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (6.57 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (6.57 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Trichlormethiazide is an orally active thiazide diuretic, with antihypertensive effect. Trichlormethiazide increases urine volume (UV), Na and K excretion and tends to improve the depressed creatinine clearance (CCRE) in acute renal failure rats model[1][2].

In Vivo

Trichlormethiazide (1 mg/kg; p.o.; once) increases urinary volume, sodium and potassium excretion in rats[1].
Trichlormethiazide (10 mg/kg, i.v.; daily for 5 days) significantly reduces mean arterial pressure (MAP) within 24 h in high salt intake (HS) rats receiving angiotensin II, but does not affect MAP in any other group[2].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Male Wistar rats, weighing 170-300 g[1]
Dosage:	1 mg/kg
Administration:	Oral administration, once
Result:	Significantly increased potassium excretion in normal rats. Significantly increased urinary volume, sodium and potassium excretion in cisplatin-induced ARF (acute renal failures) rats.

Animal Model:	Male Sprague-Dawley rats (350-450 g)[2]
Dosage:	10 mg/kg
Administration:	Intravenous injection, daily, for 15 days
Result:	Produced a significant fall in MAP in rats on combined angiotensin II and high salt intake.

REFERENCES

[1]. K Yao, et al. Diuretic effects of KW-3902, a novel adenosine A1-receptor antagonist, in various models of acute renal failure in rats. Jpn J Pharmacol. 1994 Apr;64(4):281-8.

[2]. J R Ballew, et al. Characterization of the antihypertensive effect of a thiazide diuretic in angiotensin II-induced hypertension. J Hypertens. 2001 Sep;19(9):1601-6.

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