Meticrane

Cat. No.: HY-B0908

CAS No.: 1084-65-7

Molecular Formula: $C_{10}H_{13}NO_4S_2$

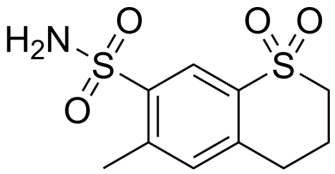
Molecular Weight: 275.34

Target: Sodium Channel; Chloride Channel

Pathway: Membrane Transporter/Ion Channel

Storage:

Powder	-20°C	3 years
	4°C	2 years
In solvent	-80°C	2 years
	-20°C	1 year



SOLVENT & SOLUBILITY

In Vitro

DMSO : ≥ 50 mg/mL (181.59 mM)

H_2O : < 0.1 mg/mL (insoluble)

* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	3.6319 mL	18.1594 mL	36.3187 mL
5 mM	0.7264 mL	3.6319 mL	7.2637 mL
10 mM	0.3632 mL	1.8159 mL	3.6319 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 (9.08 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (9.08 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (9.08 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Meticrane is a diuretic. Meticrane inhibits the reabsorption of sodium and chloride ions in the distal convoluted tubule. Meticrane is used to treat essential hypertension.

IC_{50} & Target

Sodium and chloride ion[1]

In Vivo	Meticrane, a thiazide diuretic is highly ranked in the connectivity map (cMap) analysis, and it does not have any known anti-cancer or immune-stimulating effect. Co-treatment with Meticrane significantly enhances treatment efficacy of CTLA-4 blockade[2]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

PROTOCOL

Animal Administration [2]	Mice[2] Meticrane is dissolved in DMSO to a concentration of 160 mg/mL. BALB/c (H-2d) mice receive daily i.p. injections at a dose of 400 mg/kg bodyweight for 10 days post anti-CTLA4 treatment. The thiazide diuretic Meticrane is used at doses of 150-300 mg once daily; the reported LD_{50} for mice is 10 g/kg after i.p. administration. 3 groups of standard BALB/c mice are treated consecutively (n=3/group) with increasing doses of Meticrane i.p. (100 mg/kg; 200 mg/kg and 400 mg/kg) for 10 days and monitored weight and general wellbeing. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Rumiko TANAKA, et al. Crystal Structure of Meticrane. ANALYTICAL SCIENCES 2007, VOL. 23.

[2]. Lesterhuis WJ, et al. Network analysis of immunotherapy-induced regressing tumours identifies novel synergisticdrug combinations. Sci Rep. 2015 Jul 21;5:12298.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA