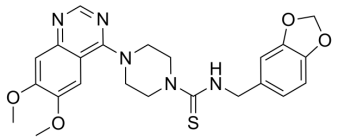
CT52923

Cat. No.:	HY-148514
CAS No.:	205256-55-9
Molecular Formula:	$C_{23}H_{25}N_5O_4S$
Molecular Weight:	467.54
Target:	PDGFR
Pathway:	Protein Tyrosine Kinase/RTK
Storage:	4°C, protect from light * In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 50 mg/mL (106.94 mM; ultrasonic and warming and heat to 60°C)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	2.1389 mL	10.6943 mL	21.3885 mL
	5 mM	0.4278 mL	2.1389 mL	4.2777 mL
	10 mM	0.2139 mL	1.0694 mL	2.1389 mL

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

In Vivo

1. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (5.35 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

CT52923 is a selective, orally active platelet-derived growth factor receptor (PDGFR) antagonist. CT52923 also is an ATP-competitive inhibitor. CT52923 can be used for the research variety of pathological diseases, including atherosclerosis, glomerulonephritis, liver cirrhosis, pulmonary fibrosis, and cancer[1].

In Vitro

CT52923 inhibit the PDGFRs and stem cell factor receptor with an IC_{50} value of 100 to 200 nM[1].
CT52923 (0.01-30 μM; 24 h) blocks plateletderived growth factor-induced smooth muscle cell migration or fibroblast proliferation with an IC_{50} of 64 and 280 nM, respectively[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Cell Migration Assay [1]

Cell Line:	Rat A10 smooth muscle cells
Concentration:	0.01-30 μM

Incubation Time:	24 h
Result:	Inhibited PDGF-induced cell migration with an IC_{50} of 64 nM.

In Vivo

CT52923 (oral; 5, 15, 30, and 50 mg/kg; twice daily) can significantly inhibit neointima formation following carotid artery injury by oral administration in the rat[1].

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

Animal Model:	Rat carotid artery balloon angioplasty model[1].
Dosage:	5, 15, 30, and 50 mg/kg
Administration:	Oral gavage; twice daily
Result:	Inhibited PDGF-mediated response to vascular injury.

REFERENCES

[1]. J C Yu, et al. Efficacy of the novel selective platelet-derived growth factor receptor antagonist CT52923 on cellular proliferation, migration, and suppression of neointima following vascular injury. J Pharmacol Exp Ther. 2001 Sep;298(3):1172-8.

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