PD173955

Cat. No.:	HY-10395		
CAS No.:	260415-63-	2	
Molecular Formula:	C ₂₁ H ₁₆ Cl ₂ N ₄	OS	
Molecular Weight:	443.35		
Target:	Bcr-Abl; Sro	2	
Pathway:	Protein Tyr	osine Kin	ase/RTK
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	2 years
		-20°C	1 year

®

MedChemExpress

SOLVENT & SOLUBILITY

In Vitro Di	DMSO : 10 mg/mL (22.5 Preparing Stock Solutions	56 mM; ultrasonic and warming and Solvent Concentration	d heat to 80°C) 1 mg	5 mg	10 mg	
		1 mM	2.2556 mL	11.2778 mL	22.5555 mL	
		5 mM	0.4511 mL	2.2556 mL	4.5111 mL	
		10 mM	0.2256 mL	1.1278 mL	2.2556 mL	
	Please refer to the solubility information to select the appropriate solvent.					
In Vivo	 Add each solvent of Solubility: ≥ 2.5 m Add each solvent of Solubility: ≥ 1 mg/ 	one by one: 10% DMSO >> 40% PEC g/mL (5.64 mM); Clear solution one by one: 10% DMSO >> 90% cor mL (2.26 mM); Clear solution	G300 >> 5% Tween-80 n oil	0 >> 45% saline		

BIOLOGICAL ACTIV	
BIOLOGICAL ACTIV	
Description	PD173955 is an orally active inhibitor of Src (IC ₅₀ = 22 nM), Yes, Abl, ATP and MAP kinases. PD173955 can effectively prevent the mitotic process and has anticancer activity ^{[1][2][3][4]} .
IC ₅₀ & Target	IC50: 22 nM (Src) ^[1] .
In Vitro	PD173955 inhibits cell growth in MDA-MB-468 and MCF-7 breast cancer cells with IC ₅₀ values of 500 nM and 1 μM, respectively ^[1] . PD173955 (100 nM; 10 min) significantly inhibits the activity of src and yes kinases in MDA-MB-468 breast cancer cells ^[1] . PD173955 (5 μM; 24 h) can block the cells in the G ₂ -M phase and has anti-mitotic activity in MDA-MB-468 breast cancer cells ^[1] . ^[1] .

Product Data Sheet

PD166326 (0.1-1000 nM; 42 h) can inhibit cell proliferation in R10(-) cells with IC ₅₀ 0.2 nM, and can inhibit stem cell factor
(SCF) -dependent proliferation in parental MO7e cells with IC ₅₀ 12 nM ^[4] .

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

Cell Cycle Analysis^[1]

Cell Line:	MDA-MB-468	
Concentration:	5 μΜ	
Incubation Time:	24 h	
Result:	Blocked 95% of the cells in the G_2 -M phase.	
Cell Proliferation Assay [[]	4]	
Cell Line:	MO7e, R10(-)(a cell line derived from P210-MO7e)	
Concentration:	0.1 nM, 1 nM, 10 nM, 100 nM, 1000 nM	
Incubation Time:	48 h	
Result:	Completely blocked the growth of R10 cells at 2.5 nM. Inhibited stem cell factor (SCF) -dependent proliferation at 5-10 nM and completely inhibited SCF-dependent growth at 50 nM.	
PD166326 (50 mg/kg; Or MCE has not independer	al gavage; Twice daily) has anti-leukemia activity in CML mice ^[4] . ntly confirmed the accuracy of these methods. They are for reference only.	
Animal Model:	Balb/c mice model of chronic myeloid leukemia (CML) ^[4]	
Dosage:	50 mg/kg	
Administration:	Oral gavage (p.o.), Twice daily for 4 days	
Result:	Significantly inhibited constitutive tyrosine phosphorylation of numerous proteins (including Lyn) in primary Bcr/abl expressing leukemia cells. Reduced the number of mice with splenomegaly and inhibited splenomegaly in at least	

Was effective in reducing the peripheral blood granulocytosis of the murine CML-like

CUSTOMER VALIDATION

• Technical University of Munich. 24.01.2018.

See more customer validations on <u>www.MedChemExpress.com</u>

REFERENCES

In Vivo

[1]. Moasser MM, et al. Inhibition of Src kinases by a selective tyrosine kinase inhibitor causes mitotic arrest. Cancer Res. 1999 Dec 15;59(24):6145-52. PMID: 10626805.

disease.

[2]. Martinelli G, et al. Dual tyrosine kinase inhibitors in chronic myeloid leukemia. Leukemia. 2005 Nov;19(11):1872-9.

[3]. Netzer WJ, et al. Gleevec shifts APP processing from a β-cleavage to a nonamyloidogenic cleavage. Proc Natl Acad Sci U S A. 2017 Feb 7;114(6):1389-1394.

[4]. Wolff NC, et al. PD166326, a novel tyrosine kinase inhibitor, has greater antileukemic activity than imatinib mesylate in a murine model of chronic myeloid leukemia. Blood. 2005 May 15;105(10):3995-4003.

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

 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