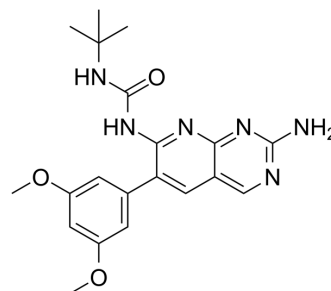


PD-166866

Cat. No.:	HY-101296		
CAS No.:	192705-79-6		
Molecular Formula:	C ₂₀ H ₂₄ N ₆ O ₃		
Molecular Weight:	396.44		
Target:	FGFR; Autophagy		
Pathway:	Protein Tyrosine Kinase/RTK; Autophagy		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro	DMSO : 5 mg/mL (12.61 mM; Need ultrasonic)				
		Solvent Concentration	Mass 1 mg	5 mg	10 mg
	Preparing Stock Solutions	1 mM	2.5224 mL	12.6122 mL	25.2245 mL
		5 mM	0.5045 mL	2.5224 mL	5.0449 mL
10 mM		0.2522 mL	1.2612 mL	2.5224 mL	
Please refer to the solubility information to select the appropriate solvent.					
In Vivo	<ol style="list-style-type: none"> Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 1 mg/mL (2.52 mM); Clear solution Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 1 mg/mL (2.52 mM); Clear solution 				

BIOLOGICAL ACTIVITY

Description	PD166866 is a selective FGFR1 tyrosine kinase inhibitor with an IC ₅₀ of 52.4 nM.
IC₅₀ & Target	FGFR1 52.4 nM (IC ₅₀)
In Vitro	PD 166866 inhibits human full-length FGFR-1 tyrosine kinase with an IC ₅₀ value of 52.4 nM and is characterized as an ATP competitive inhibitor of the FGFR-1. PD 166866 is a potent inhibitor of FGFR autophosphorylation in NIH 3T3 cells expressing endogenous FGFR-1 and in L6 cells overexpressing the human FGFR-1 tyrosine kinase. PD 166866 also inhibits bFGF-induced tyrosine phosphorylation of the 44- and 42-kDa (ERK 1/2) mitogen-activated protein kinase isoforms in L6 cells. Daily exposure of PD 166866 to L6 cells at concentrations from 1 to 100 nM results in a concentration-related inhibition of bFGF-

stimulated cell growth for 8 consecutive days with an IC₅₀ value of 24 nM^[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

PROTOCOL

Cell Assay ^[1]

PD 166866 is dissolved in DMSO. PD 166866 or vehicle (0.5% DMSO, final concentration) are added every day to triplicate cultures of cells together with 25 ng/mL bFGF to stimulate FGF-driven growth. In some experiments, PD 166866 is added every day to triplicate cultures of cells together with 30 ng/mL PDGF-BB to stimulate PDGF-driven growth. Cell number is measured by Coulter counting on days 1, 3, 6 or 8 after drug exposure^[1]

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

CUSTOMER VALIDATION

- Nat Commun. 2020 Jun 22;11(1):3162.
- Cell Death Dis. 2022 Mar 28;13(3):275.
- Cell Death Dis. 2022 Feb 4;13(2):113.
- Biochemistry for Health, NOVA University of Lisbon. 2019 Jul.

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REFERENCES

[1]. Panek RL, et al. In vitro biological characterization and antiangiogenic effects of PD 166866, a selective inhibitor of the FGF-1 receptor tyrosine kinase. J Pharmacol Exp Ther. 1998 Jul;286(1):569-77.

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