

# PD173074

**Catalog No: tcsc0182**



## Available Sizes

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**Size:** 10mg

**Size:** 50mg

**Size:** 100mg

**Size:** 200mg

**Size:** 500mg



## Specifications

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**CAS No:**

219580-11-7

**Formula:**

$C_{28}H_{41}N_7O_3$

**Pathway:**

Protein Tyrosine Kinase/RTK;Protein Tyrosine Kinase/RTK

**Target:**

VEGFR;FGFR

**Purity / Grade:**

>98%

**Solubility:**

DMSO :  $\geq 52$  mg/mL (99.30 mM)

**Observed Molecular Weight:**

523.67

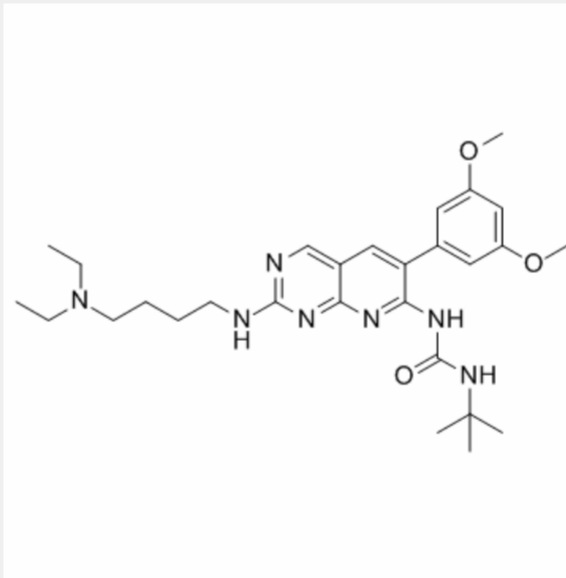
## Product Description

PD173074 is a potent **FGFR1** inhibitor with an **IC<sub>50</sub>** of 25 nM and also inhibits **VEGFR2** with an **IC<sub>50</sub>** of 100-200 nM, showing 1000-fold selectivity for FGFR1 over PDGFR and c-Src.

IC50 & Target: IC50: 25 nM (FGFR1), 100-200 nM (VEGFR2)

**In Vitro:** PD 173074 inhibits autophosphorylation of FGFR1 in a dose-dependent manner with an IC<sub>50</sub> in the range 1-5 nM. PD 173074 is an ATP-competitive inhibitor of FGFR1 with an inhibitory constant (K<sub>i</sub>) of 40 nM<sup>[1]</sup>. PD 173074 and SU 5402 produce concentration-dependent reductions in FGF-2 enhancement of granule neuron survival, with IC<sub>50</sub> values of 8 nM and 9 μM, respectively. PD 173074 does not inhibit neurotrophic and neuritogenic actions of FGF-2 signalling molecules in cerebellar granule neurons. PD 173074 and SU 5402 concentration-dependently inhibits the neurite growth response, when tested on FGF-2-treated granule neurons growing on polylysine/laminin, with IC<sub>50</sub>s of 22 nM and 25 μM, respectively<sup>[2]</sup>. PD173074 effectively antagonizes the effect of FGF-2 on proliferation and differentiation of OL progenitors in culture. Mitogen-activated protein kinase (MAPK) activation, a downstream event after activation of either FGFR or PDGFR, is also blocked by PD173074 in OL progenitors stimulated with FGF-2 but not PDGF<sup>[3]</sup>.

**In Vivo:** PD 173074 (1 mg/kg, i.p.) exhibits dose-dependent inhibition of FGF-induced neovascularization and angiogenesis in mice<sup>[1]</sup>. PD173074 (25 mg/kg, p.o.) significantly inhibits tumor growth in mice<sup>[4]</sup>.



All products are for RESEARCH USE ONLY. Not for diagnostic & therapeutic purposes!