Web: www.taiclone.com
Tel: +886-2-2735-9682
Email: order@taiclone.com

PD173074

Catalog No: tcsc0182

Available Sizes

Size: 10mg

Size: 50mg

Size: 100mg

Size: 200mg

Size: 500mg

Specifications

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 : ≥ 52 mg/mL (99.30 mM)

Observed Molecular Weight:
523.67

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Product Description

PD173074 is a potent **FGFR1** inhibitor with an **IC_{50}** of 25 nM and also inhibits **VEGFR2** with an **IC_{50}** 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_{50} in the range 1-5 nM. PD 173074 is an ATP-competitive inhibitor of FGFR1 with an inhibitory constant (K_i) of 40 nM[1]. PD 173074 and SU 5402 produce concentration-dependent reductions in FGF-2 enhancement of granule neuron survival, with IC_{50} 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_{50}s of 22 nM and 25 μM, respectively[2]. 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[3].

In Vivo: PD 173074 (1 mg/kg, i.p.) exhibits dose-dependent inhibition of FGF-induced neovascularization and angiogenesis in mice[1]. D173074 (25 mg/kg, p.o.) significantly inhibits tumor growth in mice[4].