



PD173074

Catalog No: tcsc0182

Observed Molecular Weight:

523.67

Available Sizes
Size: 10mg
Size: 50mg
Size: 100mg
Size: 200mg
Size: 500mg
Specifications
CAS No: 219580-11-7
Formula: C ₂₈ H ₄₁ N ₇ O ₃
Pathway: Protein Tyrosine Kinase/RTK;Protein Tyrosine Kinase/RTK
Target: VEGFR;FGFR
Purity / Grade: >98%
Solubility: DMSO : ≥ 52 mg/mL (99.30 mM)





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 μ M, 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 μ M, 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].

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