

# PD 169316

Catalog No: tcsc1711



## Available Sizes

**Size:** 10mg

**Size:** 50mg



## Specifications

**CAS No:**

152121-53-4

**Formula:**

$C_{20}H_{13}FN_4O_2$

**Pathway:**

MAPK/ERK Pathway;Autophagy

**Target:**

p38 MAPK;Autophagy

**Purity / Grade:**

>98%

**Solubility:**

H<sub>2</sub>O :

**Observed Molecular Weight:**

360.34

## Product Description

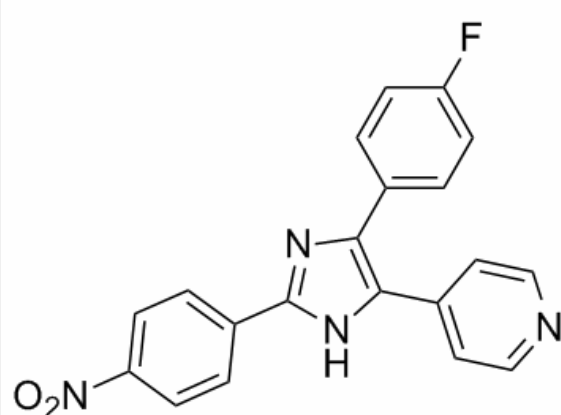
PD 169316 is a potent, cell-permeable and selective **p38 MAP kinase** inhibitor, with **IC<sub>50</sub>** of 89 nM.

IC<sub>50</sub> & Target: IC<sub>50</sub>: 89 nM (p38 MAPK)<sup>[5]</sup>

**In Vitro:** PD169316 (10 μM) inhibits TGFβ and Activin A, but not BMP4 signaling in CaOV3 cells. PD169316 (0.2-20 μM) inhibits TGFβ-induced Smad2 nuclear translocation, Smad7 mRNA induction, and reporter gene activity in CaOV3 cells<sup>[1]</sup>. PD169316 (10 μM)

shows a significantly increased rate of proliferation in Nestin knockdown cells, and can rescue the effect of Nestin knockdown on cell viability in the absence of EGF<sup>[2]</sup>. PD169316 significantly inhibits p38 MAP kinase activity with no significant change in ERK activity in PC12 cells. PD169316 (10  $\mu$ M) blocks apoptosis induced by trophic factor withdrawal in differentiated PC12 cells<sup>[3]</sup>.

**In Vivo:** PD169316 (30 ng/5  $\mu$ L) or in combination with U0126 improves spatial learning in MWM in A $\beta$ -injected rats, 20 days after A $\beta$ -injection. Pretreatment with U0126 and PD169316 decreases the levels of phosphorylated form of ERK and p38 to about 77.7 and 64.2%, respectively, and causes a significant increase in c-fos, p-CREB, NRF-1 and TFAM protein levels, compared to the A $\beta$ -injected group<sup>[4]</sup>.



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