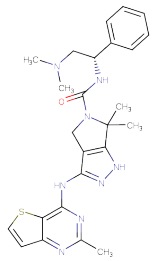
# Data Sheet (Cat.No.T6626)

TargetMol
A DRUG SCREENING EXPERT

PF-3758309

## Chemical Properties



CAS No. : 898044-15-0

Formula: C25H30N8OS

Molecular Weight: 490.62

Appearance: no data available

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year

## Biological Description

| | |
|---|---|
| Description | PF-3758309 (PF-03758309) (IC50=1.3 nM), a pyrrolopyrazole inhibitor of PAK4, has effective ATP-competition. |
| Targets(IC50) | Apoptosis,PAK |
| In vitro | PF-3758309 (Kd = 2.7 nM), an effective inhibitor of PAK4 （Ki=18.7 nM）, has ATP competition. PF-3758309 (IC50 = 1.3 nM) inhibits phosphorylation of the PAK4 substrate GEF-H1 in cells. In the tumor cell, PF-3758309(IC50 = 4.7 nM) grows in a linesanchorage-independent manner. In HCT116 cells, PF-3758309 inhibits endogenous pGEF-H1 accumulation. In A549 cells, PF-3758309 effectively inhibits cellular proliferation in IC50 of 20 nM and anchorage-independent growth in IC50 of 27 nM. |
| In vivo | In the HCT116 tumor model, PF-3758309 act as an antiproliferative inducing apoptosis. In the sensitive model, PF-3758309 (EC50=0.4 nM) blocks the growth of multiple human tumor xenografts. |
| Kinase Assay | In phospho-GEF-H1 cellular assay, TR-293-KDG cells are incubated for 3 hours with PF-3758309. TR-293-KDG cells were captured on an anti-HA antibody-coated plate, which is detected with an anti-phospho-S810-GEF-H1 antibody, and quantified with a horseradish peroxidase-goat anti-rabbit antibody conjugate. TR-293-KDG cells are constructed from HEK293 cells, which is transfected with tetracycline-inducible PAK4-kinase domain (amino acids 291-591) and expressed HA-tagged GEFH1ΔDH (amino acids 210-921). |
| Cell Research | HEK293T, HCT116, and SKOV3 cells are plated on 384-well plates for 24 hours culture. PF-3758309( ~1 μM) is added to the cell culture incubating 72 hours. After drug treatment,cell proliferation and other indicators of metabolism are measured. |
| Animal Research | Nude mice with Xenograft tumors were orally fed with PF-3758309（7.5-30 mg/kg BID）dissolved in 0.5% methylcellulose. |

## Solubility Information

| | |
|---|---|
| Solubility | DMSO: 91 mg/mL (185.5 mM),<br/>Ethanol: 91 mg/mL (185.5 mM),<br/>H2O: < 1 mg/mL (insoluble or slightly soluble),<br/>(< 1 mg/ml refers to the product slightly soluble or insoluble) |

Preparing Stock Solutions

| | 1mg | 5mg | 10mg |
|---|---|---|---|
| 1 mM | 2.0382 mL | 10.1912 mL | 20.3824 mL |
| 5 mM | 0.4076 mL | 2.0382 mL | 4.0765 mL |
| 10 mM | 0.2038 mL | 1.0191 mL | 2.0382 mL |
| 50 mM | 0.0408 mL | 0.2038 mL | 0.4076 mL |

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Reference

Murray BW, et al. Proc Natl Acad Sci U S A, 2010, 107(20), 9446-9451.