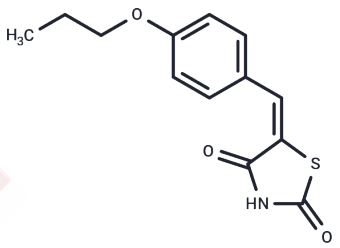
Data Sheet (Cat.No.T3989)

TargetMol

SMI-16a

Chemical Properties



CAS No. : 587852-28-6

Formula: C13H13NO3S

Molecular Weight: 263.31

Appearance: no data available

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

Biological Description

Description	SMI-16a (PIM1/2 Kinase Inhibitor VI) , a cell-permeable thiazolidinedione compound, acts as an effective, ATP-competitive inhibitor against Pim-1/2 kinases (IC50: 150/20 nM) while exhibiting little or no activity against a panel of 57 other kinases (≤18% inhibition at 5 μM).
Targets(IC50)	Pim
In vitro	PIM1/2 Kinase Inhibitor VI exhibits antitumor activity in PC3 human prostate cancer cultures in vitro (IC50: 48 μM).
In vivo	PIM1/2 Kinase Inhibitor VI exhibits antitumor activity in JC adenocarcinoma-transplanted Balb/C mice in vivo (~46% tumor mass reduction on day 20; 50 mg/kg/day, i.p.).
Kinase Assay	Competition binding reactions used 25 μg human M1 CHO membrane protein, BQCA or vehicle, and 0.15 nM [3H]NMS in 96-well deep-well plates. Binding reactions (30 °C for 2-3 h) are terminated by rapid filtration. Nonspecific binding is determined by adding 10 μM atropine. Filter plates are ished 4×with ice-cold 20 mM HEPES, 100 mM NaCl, and 5 mM MgCl2, pH 7.4 using a 96-well harvester. Plates are dried and radioactivity counted with a microplate scintillation counter[1].

Solubility Information

Solubility	DMSO: 150 mg/mL (569.67 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.7978 mL	18.989 mL	37.978 mL
5 mM	0.7596 mL	3.7978 mL	7.5956 mL
10 mM	0.3798 mL	1.8989 mL	3.7978 mL
50 mM	0.076 mL	0.3798 mL	0.7596 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

Xia Z., et al. Synthesis and evaluation of novel inhibitors of Pim-1 and Pim-2 protein kinases. J Med Chem. 2009 Jan 8;52(1):74-86.
Hiasa M., et al. Pim-2 kinase is an important target of treatment for tumor progression and bone loss in myeloma. Leukemia. 2015 Jan;29(1):207-17.