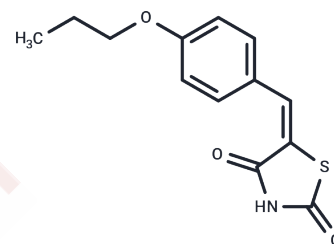


SMI-16a

Chemical Properties

| | |
|-------------------|---|
| CAS No. : | 587852-28-6 |
| Formula: | C13H13NO3S |
| Molecular Weight: | 263.31 |
| Storage: | Powder: -20°C for 3 years In solvent: -80°C for 1 year Actual storage temperature shall be subject to the COA. |



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 ($\leq 18\%$ 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 washed 4x 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: 166.67 mg/mL (632.98 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble) |
| In vivo Formulation | 10% DMSO+40% PEG300+5% Tween 80+45% Saline: 4 mg/mL (15.19 mM), Sonication is recommended. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i> |

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.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

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.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

This product is for Research Use Only · Not for Human or Veterinary or Therapeutic Use

Tel:781-999-4286 E_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481