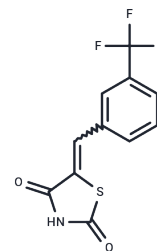


## TCS-PIM-1-4a

## Chemical Properties

CAS No. : 327033-36-3  
 Formula: C<sub>11</sub>H<sub>6</sub>F<sub>3</sub>NO<sub>2</sub>S  
 Molecular Weight: 273.23  
 Appearance: no data available  
 Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year



## Biological Description

Description	TCS-PIM-1-4a (SMI-4a), a Pim inhibitor, blocks mTORC1 activity through activation of AMPK and kills a wide range of both myeloid and lymphoid cell lines (IC <sub>50</sub> =0.8-40 μM).
Targets(IC <sub>50</sub> )	Apoptosis,Pim
In vitro	One hour inhibitor treatment (0.5 μM) of HEK-293T cultures at the end of a 4 hour 32PO <sub>4</sub> incubation period results in nearly complete inhibition of the autophosphorylation of overexpressed Pim-1. Comparing to Inhibitor VI (Cat. No. 526524), Inhibitor V is less reactive towards DYRK1α (20% vs. 68% inhibition with respective inhibitor at 5 μM) and more potent in PC3 human prostate cancer cell killing (IC <sub>50</sub> = 17 vs. 48 μM with respective inhibitor).

## Solubility Information

Solubility	DMSO: 55 mg/mL (201.3 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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## Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.6599 mL	18.2996 mL	36.5992 mL
5 mM	0.732 mL	3.6599 mL	7.3198 mL
10 mM	0.366 mL	1.830 mL	3.6599 mL
50 mM	0.0732 mL	0.366 mL	0.732 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

- Lin YW, et al. A small molecule inhibitor of Pim protein kinases blocks the growth of precursor T-cell lymphoblastic leukemia/lymphoma. *Blood*. 2010 ;115(4):824-33.
- Beharry Z, et al. The Pim protein kinases regulate energy metabolism and cell growth. *Proc Natl Acad Sci U S A*. 2011;108(2):528-33.
- Benoit SR, Ji M, Fleming R, et al . Predictors of dropouts from a San Diego diabetes program: a case control study. *Prev Chronic Dis*. 2004;1(4):A10.
- Xia Z, et al. Synthesis and Evaluation of Novel Inhibitors of Pim-1 and Pim-2 Protein Kinases. *J. Med. Chem.*, 2009, 52 (1), pp 74-86

**Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins**

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