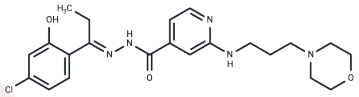
Data Sheet (Cat.No.T15830)

TargetMol

M-110

Chemical Properties



CAS No. : 1395048-49-3

Formula: C22H28ClN5O3

Molecular Weight: 445.94

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	M-110 is a highly selective, ATP-competitive inhibitor of PIM kinases, showing a preference for PIM-3 (IC50=47 nM), and inhibits PIM-1 and PIM-2 with similar IC50s of 2.5 μM. M-110 also inhibits the proliferation of prostate cancer cell lines with IC50s of 0.6 to 0.9 μM.
Targets(IC50)	Pim
In vitro	M-110 has no activity on normal human peripheral blood mononuclear cells up to 40 μM. M-110 inhibits the expression of active STAT3 through inhibition of PIM-3. M-110 also inhibits the proliferation of 22Rv1, PC3, and SW480 cells, with IC50 values of 0.6 to 0.8 μM. M-110 (0.01-10 μM; 72 hours) inhibiting the growth of DU-145 cells (IC50: 0.9 μM). M-110 (10 μM; 18 hours) inhibits STAT3 Tyr705 phosphorylation[1].

Solubility Information

Solubility	DMSO: 50 mg/mL (112.12 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: 2 mg/mL (4.48 mM),Sonication is recommended. *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.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.2425 mL	11.2123 mL	22.4245 mL
5 mM	0.4485 mL	2.2425 mL	4.4849 mL
10 mM	0.2242 mL	1.1212 mL	2.2425 mL
50 mM	0.0448 mL	0.2242 mL	0.4485 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

Chang M, et al.PIM kinase inhibitors downregulate STAT3(Tyr705) phosphorylation.MolCancerTher. 2010 Sep;9 (9):2478-87.

He Y, et al. Schisantherin A suppresses osteoclast formation and wear particle-induced osteolysis via modulating RANKL signaling pathways. Biochem Biophys Res Commun. 2014 Jul 4;449(3):344-50.

Zhou E, et al. Schisantherin A protects lipopolysaccharide-induced acute respiratory distress syndrome in mice through inhibiting NF-κB and MAPKs signaling pathways. Int Immunopharmacol. 2014 Sep;22(1):133-40.

Sa F, et al. Discovery of novel anti-parkinsonian effect of schisantherin A in in vitro and in vivo. Neurosci Lett. 2015 Apr 23;593:7-12.

Zhang LQ, et al. Schisantherin A protects against 6-OHDA-induced dopaminergic neuron damage in zebrafish and cytotoxicity in SH-SY5Y cells through the ROS/NO and AKT/GSK3β pathways. J Ethnopharmacol. 2015 Apr 29. pii: S0378-8741(15)00306-2.

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