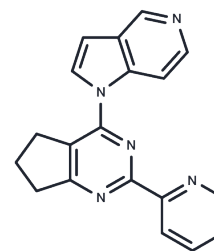


AZ12601011

Chemical Properties

CAS No. : 2748337-86-0
 Formula: C19H15N5
 Molecular Weight: 313.36
 Storage: Keep away from moisture
 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	AZ12601011 is an orally active, selective and potent TGFBR1 kinase inhibitor. AZ12601011 inhibits the release of inflammatory factors, interleukin (IL)-1 β , IL-6 and tumor necrosis factor- α , and inhibits the growth of breast tumors. AZ12601011 directly binds to TGF- β R1 and blocks downstream Smad3 activation, which can be used to prevent renal fibrosis.
Targets(IC50)	ALK,TGF-beta/Smad
In vitro	AZ12601011 (0.01-10 μ M; for 20 minutes) entirely inhibits phosphorylation of SMAD2 and the activity of ALK4, ALK7, and TGFBR1. It also inhibits 4T1 cell growth in vitro (IC50 = 0.4 μ M). [1] Western Blot Analysis shows complete inhibition of SMAD2 phosphorylation in NIH3T3, HaCaT, C2C12, and T47D cells at concentrations of 0.01-10 μ M after 20 minutes of incubation.
In vivo	AZ12601011 (50mg/kg; oral gavage; twice daily; for 25 days) significantly suppresses tumor growth and metastasis in vivo [1]. Administered to female BALB/c mice (weight >18g) bearing tumors, the compound effectively hinders both tumor development and migration.

Solubility Information

Solubility	DMSO: 4 mg/mL (12.76 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	3.1912 mL	15.9561 mL	31.9122 mL
5 mM	0.6382 mL	3.1912 mL	6.3824 mL
10 mM	0.3191 mL	1.5956 mL	3.1912 mL
50 mM	0.0638 mL	0.3191 mL	0.6382 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

Spender LC, et al. Preclinical Evaluation of AZ12601011 and AZ12799734, Inhibitors of Transforming Growth Factor β Superfamily Type 1 Receptors. Mol Pharmacol. 2019 Feb;95(2):222-234.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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