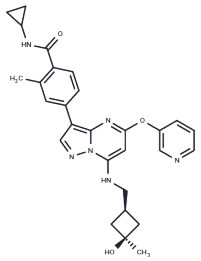
Data Sheet (Cat.No.T22289)

TargetMol

CFI-402257

Chemical Properties



CAS No. : 1610759-22-2

Formula: C28H30N6O3

Molecular Weight: 498.58

Storage: Store at low temperature,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	CFI-402257 (Luvixasertib) is a highly selective oral TTK (Mps1, Monopolar Spindle 1) kinase inhibitor that potently inhibits TTK kinase activity (Mps1 Ki = 0.09 nM; EC50 = 6.5 nM). It is intended for use in research on hepatocellular carcinoma and breast cancer.
Targets(IC50)	Kinesin,Tyrosine Kinases
In vitro	**Methods**: MHCC97L cells were treated with 100 nM CFI-402257 for 72 hours, followed by flow cytometric analysis of DNA content. **Results**: CFI-402257 induced a significant increase in the proportion of aneuploid cells. [1]
In vivo	**Methods**: MHCC97L-luc cells were implanted in BALB/cAnN-nu mice. Treatment commenced 2 weeks post-implantation when tumor formation initiated. CFI-402257 was administered orally via gavage at 30 mg/kg once daily for 4 consecutive weeks. **Results**: Tumor volume significantly decreased, and the number of pulmonary metastatic nodules markedly reduced. [1] **Methods**: A carotid artery wire injury model was established in C57BL/6 mice via carotid artery wire injury. Treatment commenced postoperatively with oral gavage of CFI-402257 at 30 mg/kg once daily for 28 consecutive days. **Results**: The area of newly formed endothelium and the intima-media ratio were significantly reduced, while re-endothelialization remained unaffected (confirmed by CD31 staining), demonstrating superiority over conventional drug-eluting stents. [2]

Solubility Information

Solubility	DMSO: 37.7 mg/mL (75.61 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.0057 mL	10.0285 mL	20.057 mL
5 mM	0.4011 mL	2.0057 mL	4.0114 mL
10 mM	0.2006 mL	1.0028 mL	2.0057 mL
50 mM	0.0401 mL	0.2006 mL	0.4011 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

Chan CY, et al. CFI-402257, a TTK inhibitor, effectively suppresses hepatocellular carcinoma. Proc Natl Acad Sci U S A. 2022 Aug 9;119(32):e2119514119.
Wu JH, et al. TTK Inhibition Alleviates Postinjury Neointimal Formation and Atherosclerosis. Adv Sci (Weinh). 2025 Feb;12(6):e2409250.