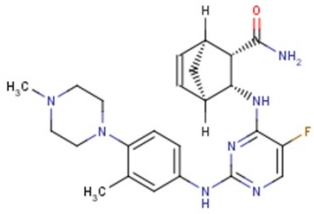
Data Sheet (Cat.No.T14925)

TargetMol
A DRUG SCREENING EXPERT

Cenisertib

Chemical Properties



CAS No.:	871357-89-0
Formula:	C24H30FN7O
Molecular Weight:	451.54
Appearance:	N/A
Storage:	0-4℃ for short term (days to weeks), or -20℃ for long term (months).

Biological Description

Description	Cenisertib (AS-703569) is a multi-kinase inhibitor and blocks the activity of Aurora-kinase-A/B, AKT, ABL1, STAT5, and FLT3. Cenisertib inhibits tumor growth in xenograft models of breast, pancreatic, ovarian, colon, lung tumors, and leukemia.
Targets(IC_{50})	Aurora-A: None Aurora-B: None ABL1: None Akt: None STAT5: None
In vitro	Cenisertib (1-1000 nM; for 48 hours) induces a dose-dependent inhibition of proliferation in primary neoplastic mast cells (MC). Cenisertib (1-1000 nM; for 24 hours) induces apoptosis in HMC-1.1, HMC-1.2, C2, and NI-1 cells in a dose-dependent manner. Cenisertib (5-500 nM; for 24 hours) induces cleavage of caspase 3 in both HMC-1 sub-clones as well as in C2 and NI-1 cells. Cenisertib (5-100 nM; for 24 hours) induces a substantial G2/M cell cycle arrest at low nanomolar concentrations in all MC lines [1].
In vivo	Cenisertib (p.o.; 7 or 10 mg/kg/day; for 3 days) evidently suppresses tumor growth [2].

Solubility Information

Solubility	DMSO: 250 mg/mL (553.66 mM) (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.215 mL	11.073 mL	22.146 mL
5 mM	0.443 mL	2.215 mL	4.429 mL
10 mM	0.221 mL	1.107 mL	2.215 mL
50 mM	0.044 mL	0.221 mL	0.443 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. The storage conditions and period of the stock solution: - 80 ℃ for 6 months; - 20 ℃ for 1 month. Please use it as soon as possible.

Reference

1. Peter B, et al. Drug-induced inhibition of phosphorylation of STAT5 overrides drug resistance in neoplastic mast cells. Leukemia. 2018 Apr;32(4):1016-1022.

2. McLaughlin J, et al. Preclinical characterization of Aurora kinase inhibitor R763/AS703569 identified through an image-based phenotypic screen. J Cancer Res Clin Oncol. 2010 Jan;136(1):99-113.

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