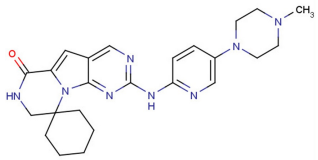
Data Sheet (Cat.No.T13202L)

TargetMol
A DRUG SCREENING EXPERT

Trilaciclib

Chemical Properties



CAS No.:	1374743-00-6
Formula:	C24H30N8O
Molecular Weight:	446.55
Appearance:	N/A
Storage:	0-4℃ for short term (days to weeks), or -20℃ for long term (months).

Biological Description

Description	Trilaciclib is an inhibitor of CDK4/6 (IC50s: 1 nM and 4 nM for CDK4 and CDK6, respectively).
Targets(IC_{50})	CDK4: 1 nM CDK6: 4 nM
In vitro	Incubation with Trilaciclib for 24 hours induces a robust G1 cell-cycle arrest (time=0). By 16 hours after Trilaciclib hydrochloride washout, cells have re-entered the cell cycle and demonstrate cell-cycle kinetics similar to untreated control cells. Trilaciclib causes a transient, and reversible G1 arrest. A transient Trilaciclib-mediated G1 cell-cycle arrest in CDK4/6-sensitive cells decreases the in vitro toxicity of a variety of commonly used cytotoxic chemotherapy agents associated with myelosuppression [1].
In vivo	Trilaciclib treatment causes a robust and dose-dependent suppression of proliferation in HSPCs at 12 hours, with EdU incorporation returning near baseline levels in a dose-dependent manner by 24 hours after administration. A single oral dose of Trilaciclib can produce reversible cell-cycle arrest in HSPCs in a dose-dependent manner in vivo. Mice given Trilaciclib (100 mg/kg, 30 minutes) prior to etoposide treatment, exhibits only background levels of caspase-3/7 activity. Trilaciclib can protect the bone marrow from chemotherapy-induced apoptosis in vivo. Treatment with Trilaciclib prior to 5-FU likely decreases 5-FU-induced damaged by chemotherapy in HSPCs, thus accelerating blood count recovery after chemotherapy [1].

Solubility Information

Solubility	< 1 mg/ml refers to the product slightly soluble or insoluble

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.239 mL	11.197 mL	22.394 mL
5 mM	0.448 mL	2.239 mL	4.479 mL
10 mM	0.224 mL	1.12 mL	2.239 mL
50 mM	0.045 mL	0.224 mL	0.448 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.

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