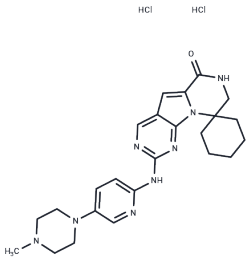
Data Sheet (Cat.No.T13202)

TargetMol

Trilaciclib hydrochloride

Chemical Properties



CAS No. : 1977495-97-8

Formula: C24H32Cl2N8O

Molecular Weight: 519.47

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	Trilaciclib hydrochloride (G1T28 hydrochloride) is an inhibitor of CDK4/6 (IC50s: 1 nM and 4 nM for CDK4 and CDK6).
Targets(IC50)	CDK
In vitro	Incubation with Trilaciclib hydrochloride (G1T28) for 24 hours can induce a strong G1 cell cycle arrest (time=0). Cells have re-entered the cell cycle and demonstrate cell-cycle kinetics similar to untreated control cells By 16 hours after Trilaciclib hydrochloride washout. These results demonstrate that Trilaciclib hydrochloride causes a transient, and reversible G1 arrest. A transient Trilaciclib hydrochloride-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.
In vivo	G1T28 inhibits the phosphorylation of RB and induces an exclusive, reversible G1 arrest. n vivo, G1T28 reversibly and in a dose-dependent manner, regulates the proliferation of HSPCs.Pretreatment of mice with oral G1T28 allows for the faster recovery of CBCs following chemotherapy treatment.Likewise, oral G1T28 does not protect RB-deficient tumors from chemotherapy but adds to the antitumor effect.Although this effect was found in athymic mice that lack T lymphocytes, it is still possible that the enhanced efficacy is due to preservation of other immune cell types such as natural killer cells.

Solubility Information

Solubility	DMSO: Insoluble, H2O: 3.9 mg/mL (7.51 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.925 mL	9.6252 mL	19.2504 mL
5 mM	0.385 mL	1.925 mL	3.8501 mL
10 mM	0.1925 mL	0.9625 mL	1.925 mL
50 mM	0.0385 mL	0.1925 mL	0.385 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

Bisi JE, et al. Preclinical Characterization of G1T28: A Novel CDK4/6 Inhibitor for Reduction of Chemotherapy-Induced Myelosuppression. Mol Cancer Ther. 2016 May;15(5):783-93.