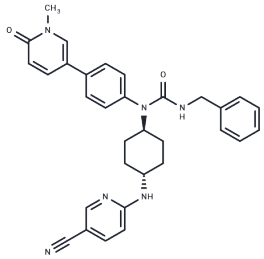
Data Sheet (Cat.No.T39752)

TargetMol

CDK12-IN-2

Chemical Properties



CAS No. : 2244987-03-7

Formula: C32H32N6O2

Molecular Weight: 532.64

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	CDK12-IN-2 (CDK12 inhibitor 2) is an effective and selective inhibitor of CDK12 with an IC50 of 52 nM, >100 μM, >10 μM and 16 μM for CDK12, CDK2, CDK7, and CDK9. CDK12-IN-2 can be used in studies about the function of CDK12.
Targets(IC50)	CDK
In vitro	In SK-BR-3 cells, CDK12-IN-2 inhibits the phosphorylation of the CTD Ser2 with an IC50 of 185 nM. CDK12-IN-2 exhibits a growth inhibition with an IC50 of 0.8 μM. CDK12-IN-2 inhibits CDK12 in a time dependent manner with IC50s of 0.0078 μM, 0.042 μM, 0.057 μM, and 0.059 μM, for 0h, 1h, 2h and 5h[1].

Solubility Information

Solubility	DMSO: 50 mg/mL (93.87 mM),Sonication and heating to 60°C are recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% Corn Oil: 2.5 mg/mL (4.69 mM),Sonication is recommended. *Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.8774 mL	9.3872 mL	18.7744 mL
5 mM	0.3755 mL	1.8774 mL	3.7549 mL
10 mM	0.1877 mL	0.9387 mL	1.8774 mL
50 mM	0.0375 mL	0.1877 mL	0.3755 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

Masahiro Ito, et al. Discovery of 3-Benzyl-1-(trans-4-((5-cyanopyridin-2-yl)amino)cyclohexyl)-1-arylurea Derivatives as Novel and Selective Cyclin-Dependent Kinase 12 (CDK12) Inhibitors. J Med Chem. 2018 Sep 13;61 (17):7710-7728.