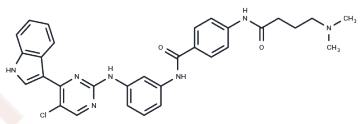
Data Sheet (Cat.No.T13153)

TargetMol

THZ1-R

Chemical Properties



CAS No. : 1621523-07-6

Formula: C31H30ClN7O2

Molecular Weight: 568.07

Storage: Store at low temperature
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	THZ1-R is a non-covalent active analogue of THZ1, with the acrylamide group removed from THZ1, losing its ability to covalently bind to the C312 cysteine residue of CDK7. Its CDK7 inhibitory activity is weaker than that of THZ1.
Targets(IC50)	CDK
In vitro	**Method**: Loucy cells were treated with varying concentrations of THZ1 or 10 μM THZ1-R for 4 hours. Cell lysates were then incubated with bio-THZ1, followed by immunoblotting and immunoprecipitation to detect CDK7 labeling and competitive binding. **Result**: Bio-THZ1 effectively pulled down CDK7, and THZ1 competed for binding in a dose-dependent manner. Immunoprecipitation confirmed that bio-THZ1 specifically labels CDK7, indicating that THZ1 covalently binds to intracellular CDK7. [1]

Solubility Information

Solubility	DMSO: 80 mg/mL (140.83 mM),Sonication is recommended. H2O: < 1 mg/mL (insoluble) (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 3.3 mg/mL (5.81 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	1.7603 mL	8.8017 mL	17.6035 mL
5 mM	0.3521 mL	1.7603 mL	3.5207 mL
10 mM	0.176 mL	0.8802 mL	1.7603 mL
50 mM	0.0352 mL	0.176 mL	0.3521 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

Kwiatkowski N, et al. Targeting transcription regulation in cancer with a covalent CDK7 inhibitor. Nature. 2014 Jul 31;511(7511):616-20.