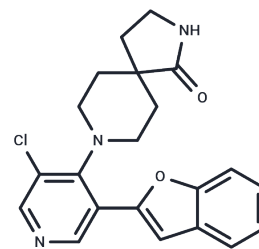


CDK8-IN-12

Chemical Properties

CAS No. : 2613307-67-6
 Formula: C₂₁H₂₀ClN₃O₂
 Molecular Weight: 381.86
 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	CDK8-IN-12 is a selective, potent and orally active inhibitor of CDK8 (K _i : 14 nM) and is an anti-cancer agent. CDK8-IN-12 inhibits GSK-3 α , GSK-3 β and PCK- θ with K _i of 13 nM, 4 nM and 109 nM respectively. CDK8-IN-12 showed anti-proliferative activity against MV4-11 cells.
Targets(IC50)	CDK,GSK-3,PKC
In vitro	CDK8-IN-12 (0.36, 0.72 μ M ; 2 h) significantly reduced the phosphorylation of STAT1 serine 727.[1]
In vivo	CDK8-IN-12 (intravenous administration ; 5 mg/kg in rats ; 2 mg/kg in mice) had a T _{1/2} of 0.9 h and 0.34 h in rats and mice, respectively.[1]

Solubility Information

Solubility	DMSO: 27.5 mg/mL (72.02 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 2 mg/mL (5.24 mM),Sonication is recommended. <i>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.</i>

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.6188 mL	13.0938 mL	26.1876 mL
5 mM	0.5238 mL	2.6188 mL	5.2375 mL
10 mM	0.2619 mL	1.3094 mL	2.6188 mL
50 mM	0.0524 mL	0.2619 mL	0.5238 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

Yu M, et al. Potent and orally bioavailable CDK8 inhibitors: Design, synthesis, structure-activity relationship analysis and biological evaluation. Eur J Med Chem. 2021 ; 214:113248.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

This product is for Research Use Only · Not for Human or Veterinary or Therapeutic Use

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