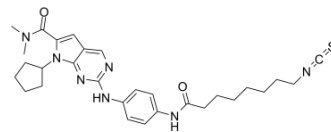


CDK9-IN-7

Cat. No.:	HY-126251		
CAS No.:	2369981-71-3		
Molecular Formula:	C ₂₉ H ₃₇ N ₇ O ₂ S		
Molecular Weight:	547.71		
Target:	CDK; Apoptosis		
Pathway:	Cell Cycle/DNA Damage; Apoptosis		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro	DMSO : 62.5 mg/mL (114.11 mM; Need ultrasonic)				
		Solvent Concentration	Mass 1 mg	5 mg	10 mg
	Preparing Stock Solutions	1 mM	1.8258 mL	9.1289 mL	18.2578 mL
		5 mM	0.3652 mL	1.8258 mL	3.6516 mL
10 mM		0.1826 mL	0.9129 mL	1.8258 mL	
Please refer to the solubility information to select the appropriate solvent.					
In Vivo	1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 2.08 mg/mL (3.80 mM); Clear solution 2. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.08 mg/mL (3.80 mM); Clear solution				

BIOLOGICAL ACTIVITY

Description	CDK9-IN-7 (compound 21e) is a selective, highly potent, and orally active CDK9/cyclin T inhibitor (IC ₅₀ =11 nM), which exhibits more potent over other CDKs (CDK4/cyclinD=148 nM; CDK6/cyclinD=145 nM). CDK9-IN-7 shows antitumor activity without obvious toxicity. CDK9-IN-7 induces NSCLC cell apoptosis, arrests the cell cycle in the G2 phase, and suppresses the stemness properties of NSCLC ^[1] .		
IC₅₀ & Target	CDK9/cyclinT1 11 nM (IC ₅₀)	CDK4/cyclin D 148 nM (IC ₅₀)	CDK6/cyclinD 145 nM (IC ₅₀)
In Vitro	CDK9-IN-7 displays exceptional potency against NSCLC cell lines, especial A549 and H1299 with IC ₅₀ values less than 0.5 μM. In the drug-resistant NSCLC cell line H1975, CDK9-IN-7 also exhibits good inhibition potency with an IC ₅₀ value of 0.837 μM ^[1]		

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Wang X, et al. Novel cyclin-dependent kinase 9 (CDK9) inhibitor with suppression of cancer stemness activity against non-small-cell lung cancer. Eur J Med Chem. 2019 Jul 25;181:111535.

Caution: Product has not been fully validated for medical applications. For research use only.

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