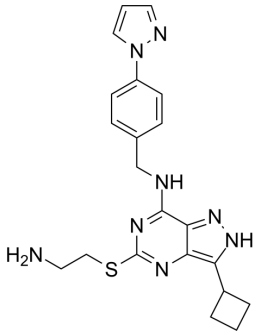
CDK-IN-9

Cat. No.:	HY-150641
CAS No.:	3031561-92-6
Molecular Formula:	$C_{21}H_{24}N_8S$
Molecular Weight:	420.53
Target:	CDK; Apoptosis; DNA/RNA Synthesis
Pathway:	Cell Cycle/DNA Damage; Apoptosis
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	CDK-IN-9 (compound 24) is a potent CDK inhibitor, also as a molecular glue inducing an interaction between CDK12 and DDB1, with an IC_{50} values of 4 nM for CDK2/E. CDK-IN-9 leads to polyubiquitination of cyclin K and its subsequent degradation. CDK-IN-9 induce apoptosis through dephosphorylation of retinoblastoma protein and RNA polymerase II[1].
IC_{50} & Target	CDK2/E 4 nM (IC_{50}) Cdk5/p25 39 nM (IC_{50}) CDK9/T1 20 nM (IC_{50}) CDK12/K 64 nM (IC_{50}) CDK13/K 22 nM (IC_{50})
In Vitro	CDK-IN-9 (compound 24) (0.005, 0.05, 0.5, or 5 μM; 2 h) potently decreases the level of cyclin K in MINO cells at 5 nM, and makes cyclin K disappear completely at 50 nM[1]. CDK-IN-9 makes siRNA silencing of DDB1 effectively stabilizes cyclin K at the protein level in treated MINO cells[1]. CDK-IN-9 (2.5-40 nM; 24 h) activates caspases 3/7/9 and decreases anti-apoptotic proteins Mcl-1 and XIAP in MINO cells[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	CDK-IN-9 (0.1-10 mg/kg; IP, single dosage) causes the decrease in cyclin K and CDK12 levels[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Jorda R, et al. 3,5,7-Substituted Pyrazolo[4,3-d]Pyrimidine Inhibitors of Cyclin-Dependent Kinases and Cyclin K Degraders. J Med Chem. 2022 Jul 14;65(13):8881-8896.

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