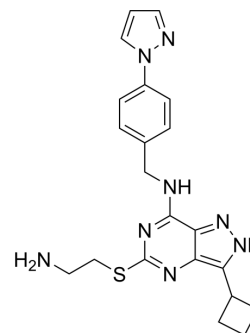


## CDK-IN-9

<b>Cat. No.:</b>	HY-150641
<b>Molecular Formula:</b>	C <sub>21</sub> H <sub>24</sub> N <sub>8</sub> S
<b>Molecular Weight:</b>	420.53
<b>Target:</b>	CDK; Apoptosis; DNA/RNA Synthesis
<b>Pathway:</b>	Cell Cycle/DNA Damage; Apoptosis
<b>Storage:</b>	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

<b>Description</b>	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 <sub>50</sub> 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 <sup>[1]</sup> .			
<b>IC<sub>50</sub> &amp; Target</b>	CDK2/E 4 nM (IC <sub>50</sub> )	Cdk5/p25 39 nM (IC <sub>50</sub> )	CDK9/T1 20 nM (IC <sub>50</sub> )	CDK12/K 64 nM (IC <sub>50</sub> )
	CDK13/K 22 nM (IC <sub>50</sub> )			
<b>In Vitro</b>	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 <sup>[1]</sup> . CDK-IN-9 makes siRNA silencing of DDB1 effectively stabilizes cyclin K at the protein level in treated MINO cells <sup>[1]</sup> . 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 <sup>[1]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.			
<b>In Vivo</b>	CDK-IN-9 (0.1-10 mg/kg; IP, single dosage) causes the decrease in cyclin K and CDK12 levels <sup>[1]</sup> . 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 Degradors. J Med Chem. 2022 Jul 14;65(13):8881-8896.

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

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