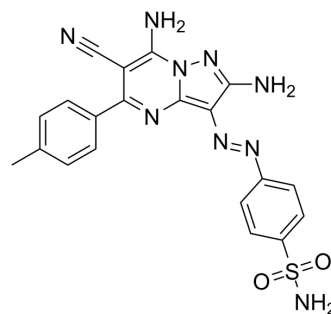


## CDK2-IN-12

<b>Cat. No.:</b>	HY-150573
<b>CAS No.:</b>	2410402-88-7
<b>Molecular Formula:</b>	C <sub>20</sub> H <sub>17</sub> N <sub>9</sub> O <sub>2</sub> S
<b>Molecular Weight:</b>	447.47
<b>Target:</b>	CDK; Carbonic Anhydrase
<b>Pathway:</b>	Cell Cycle/DNA Damage; Metabolic Enzyme/Protease
<b>Storage:</b>	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

<b>Description</b>	CDK2-IN-12 (compound 10b) is a potent CDK2 inhibitor, with an IC <sub>50</sub> of 11.6 μM. CDK2-IN-12 inhibits hCA (carbonic anhydrase) isoforms I, II, IX and XII, with K <sub>i</sub> values of 3534, 638.4, 44.3, and 48.8 nM. CDK2-IN-12 shows anticancer activity <sup>[1]</sup> .	
<b>IC<sub>50</sub> &amp; Target</b>	CDK2 11.6 μM (IC <sub>50</sub> )	CDK9 >12.5 μM (IC <sub>50</sub> )
<b>In Vitro</b>	CDK2-IN-12 (compound 10b) exerts outstanding anti-proliferative activity against leukemia (CCRF-CEM, HL-60TB, K-562 and MOLT-4), non-small cell lung cancer (HOP-92), colon cancer (COLO 205, HCT-116 and SW-620), renal (ACHN) and breast (MDA-MB-468) cell lines with GI% (percentage growth inhibition) ranging from 80 to 100% <sup>[1]</sup> . CDK2-IN-12 displays much enhanced growth inhibitory activity, under normoxic and hypoxic conditions, against MDA-MB-468 (IC <sub>50</sub> = 1.37 ± 0.07 and 3.03 ± 0.11 μM) than MCF-7 cells (IC <sub>50</sub> = 6.80 ± 0.17 and 15.10 ± 0.82 μM) <sup>[1]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.	

### REFERENCES

[1]. Said MA, et al. Sulfonamide-based ring-fused analogues for CAN508 as novel carbonic anhydrase inhibitors endowed with antitumor activity: Design, synthesis, and in vitro biological evaluation. *Eur J Med Chem.* 2020 Mar 1;189:112019.

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

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