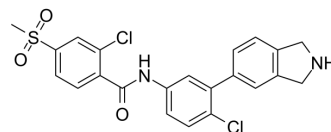


## USP28-IN-4

<b>Cat. No.:</b>	HY-149230
<b>CAS No.:</b>	2931509-15-6
<b>Molecular Formula:</b>	C <sub>22</sub> H <sub>18</sub> Cl <sub>2</sub> N <sub>2</sub> O <sub>3</sub> S
<b>Molecular Weight:</b>	461.36
<b>Target:</b>	Deubiquitinase
<b>Pathway:</b>	Cell Cycle/DNA Damage
<b>Storage:</b>	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

<b>Description</b>	USP28-IN-4 is a USP28 inhibitor (IC <sub>50</sub> =0.04 μM) with high selectivity over USP2, USP7, USP8, USP9x, UCHL3 and UCHL5. USP28-IN-4 shows cytotoxicity against cancer cells, down-regulates the cellular level of c-Myc through ubiquitin-proteasome system. USP28-IN-4 also decreases the ankyrase-1/2 level in vitro. USP28-IN-4 enhance the sensitivity of colorectal cancer cells to Regorafenib (HY-10331) <sup>[1]</sup> .									
<b>IC<sub>50</sub> &amp; Target</b>	USP28 0.04 μM (IC <sub>50</sub> )									
<b>In Vitro</b>	<p>USP28-IN-4 (compound 9p) (12.5 μM, 15 μM; 3 d) inhibits colony formation of human colorectal cancer cells HCT116 (15 μM) and Ls174T (12.5 μM)<sup>[1]</sup>.</p> <p>USP28-IN-4 (20-80 μM; 24 h) down-regulates the level of c-Myc by enhancing its degradation via ubiquitin-proteasome system (UPS)<sup>[1]</sup>.</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p> <p>Western Blot Analysis<sup>[1]</sup></p> <table border="1"> <tr> <td>Cell Line:</td> <td>Human colorectal cancer cells HCT116 and Ls174T</td> </tr> <tr> <td>Concentration:</td> <td>20 μM, 30 μM, 50 μM, and 60 μM, for Ls174T; 30 μM, 50 μM, 60 μM and 80 μM for HCT116</td> </tr> <tr> <td>Incubation Time:</td> <td>24 h</td> </tr> <tr> <td>Result:</td> <td>Dose-dependently down-regulated the cellular level of c-Myc.</td> </tr> </table>		Cell Line:	Human colorectal cancer cells HCT116 and Ls174T	Concentration:	20 μM, 30 μM, 50 μM, and 60 μM, for Ls174T; 30 μM, 50 μM, 60 μM and 80 μM for HCT116	Incubation Time:	24 h	Result:	Dose-dependently down-regulated the cellular level of c-Myc.
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Result:	Dose-dependently down-regulated the cellular level of c-Myc.									

### REFERENCES

[1]. Zhou D, et al. Structure-based discovery of potent USP28 inhibitors derived from Vismodegib. *Eur J Med Chem.* 2023 Jun 5;254:115369.

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

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