

Product Data Sheet

USP28-IN-4

Cat. No.: HY-149230 CAS No.: 2931509-15-6 Molecular Formula: $C_{22}H_{18}Cl_2N_2O_3S$

Molecular Weight: 461.36

Target: Deubiquitinase

Pathway: Cell Cycle/DNA Damage
Storage: 4°C, protect from light

* In solvent: -80°C, 6 months; -20°C, 1 month (protect from light)

BIOLOGICAL ACTIVITY

USP28-IN-4 is a USP28 inhibitor (IC₅₀=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)^[1].

IC₅₀ & Target USP28

 $0.04~\mu M~(IC_{50})$

In Vitro 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 μ M)^[1].

USP28-IN-4 (20-80 μM; 24 h) down-regulates the level of c-Myc by enhancing its degradation via ubiquitin-proteasome

 $system \, (UPS)^{[1]}.$

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

Western Blot Analysis^[1]

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.

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.

 $\label{lem:caution:Product} \textbf{Caution: Product has not been fully validated for medical applications. For research use only.}$

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