# HDAC6-IN-10

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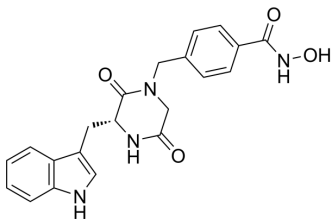
| **Cat. No.:** | HY-150595 |
| **CAS No.:** | 2408286-73-5 |
| **Molecular Formula:** | $C_{21}H_{20}N_4O_4$ |
| **Molecular Weight:** | 392.41 |
| **Target:** | HDAC; Microtubule/Tubulin |
| **Pathway:** | Cell Cycle/DNA Damage; Epigenetics; Cytoskeleton |
| **Storage:** | Please store the product under the recommended conditions in the Certificate of Analysis. |



## BIOLOGICAL ACTIVITY

**Description**

HDAC6-IN-10 is a highly selective HDAC6 inhibitor with the $IC_{50}$ of 0.73 nM. HDAC6-IN-10 has 144~10941-fold selectivity over other HDAC isoforms. HDAC6-IN-10 shows anti-proliferative activities against multiple myeloma cells[1].

**$IC_{50}$ & Target**

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| HDAC6<br>0.73 nM ($IC_{50}$) | HDAC10<br>105 nM ($IC_{50}$) | HDAC8<br>513 nM ($IC_{50}$) | HDAC7<br>752 nM ($IC_{50}$) |
| HDAC11<br>1800 nM ($IC_{50}$) | HDAC9<br>2560 nM ($IC_{50}$) | HDAC5<br>4370 nM ($IC_{50}$) | HDAC4<br>5620 nM ($IC_{50}$) |
| HDAC1<br>8020 nM ($IC_{50}$) | | | |

**In Vitro**

HDAC6-IN-10 (Compound 21b) (0.1-10 μM; 24 h) treatment shows highly selective inhibition against HDAC6[1].
HDAC6-IN-10 (Compound 21b) (0-100 μM; 72 h) treatment shows anti-proliferative activities against two multiple myeloma cells RPMI-8226 and U266[1].

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

Western Blot Analysis[1]

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| Cell Line: | HCT-116 |
| Concentration: | 0.1, 1 and 10 μM |
| Incubation Time: | 24 hours |
| Result: | Showed a dose-dependent increase in the level of Ac-tubulin. |

Cell Proliferation Assay[1]

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| Cell Line: | RPMI-8226 and U266 cells |
| Concentration: | 0-100 μM |
| Incubation Time: | 72 hours |
| Result: | Showed antiproliferative activities against RPMI-8226 and U266 with the $IC_{50}$s of 33.183 μM |

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| | and 43.233 μM, respectively. |

## REFERENCES

[1]. Xin Chen, et al. Novel 2, 5-diketopiperazine derivatives as potent selective histone deacetylase 6 inhibitors: Rational design, synthesis and antiproliferative activity. Eur J Med Chem. 2020 Feb 1;187:111950.



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