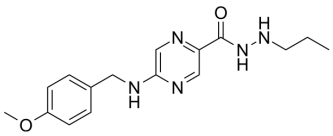
HDAC3-IN-2

Cat. No.:	HY-156096
CAS No.:	3033039-28-7
Molecular Formula:	$C_{16}H_{21}N_5O_2$
Molecular Weight:	315.37
Target:	HDAC; Histone Methyltransferase; Caspase; Apoptosis; DNA/RNA Synthesis
Pathway:	Cell Cycle/DNA Damage; Epigenetics; Apoptosis
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	HDAC3-IN-2 (compound 4i) is a pyrazinyl hydrazide-based HDAC3 inhibitor (IC_{50}: 14 nM) that efficiently targets triple-negative breast cancer cells. HDAC3-IN-2 is cytotoxic with an IC_{50} of 0.55 μM against 4T1 and an IC_{50} of 0.74 μM against MDA-MB-231. HDAC3-IN-2 has anti-tumor efficacy in vivo in tumor-bearing mouse models, selectively increasing the acetylation levels of H3K9, H3K27 and H4K12, increasing the contents of apoptosis-related caspase-3, caspase-7 and cytochrome c, and reducing Proliferation-related Bcl-2, CD44, EGFR, and Ki-67 levels[1].
IC_{50} & Target	IC50: 14 nM (HDAC3)[1]

REFERENCES

[1]. Pulya S, et al. Selective HDAC3 Inhibitors with Potent In Vivo Antitumor Efficacy against Triple-Negative Breast Cancer. J Med Chem. 2023 Sep 14;66(17):12033-12058.. .

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