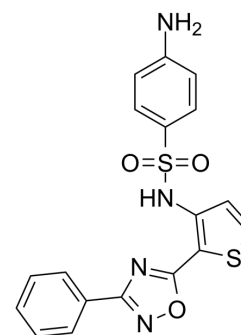


hCAIX-IN-12

Cat. No.:	HY-146254
CAS No.:	2414598-85-7
Molecular Formula:	C ₁₈ H ₁₄ N ₄ O ₃ S ₂
Molecular Weight:	398.46
Target:	Carbonic Anhydrase; Apoptosis; Reactive Oxygen Species
Pathway:	Metabolic Enzyme/Protease; Apoptosis; Immunology/Inflammation; NF-κB
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	hCAIX-IN-12 is a potent hCAIX inhibitor with IC ₅₀ values of 0.74, 10.78 μM for CAIX and CAII, respectively. hCAIX-IN-12 shows antiproliferative effect and induces apoptosis. hCAIX-IN-12 increases ROS production. hCAIX-IN-12 has the potential for the research of colorectal cancer (CRC) [1].
IC₅₀ & Target	IC ₅₀ : 0.74 μM (CAIX); 10.78 μM (CAII)[1].
In Vitro	<p>hCAIX-IN-12 (compound OX27) shows antiproliferative effect with IC₅₀s of 6.0 μM for HCT-116 cells[1].</p> <p>hCAIX-IN-12 decreases the expression of CAIX in HCT-116 cells and inhibits the expression of CAIX more pronouncedly in hypoxic conditions[1].</p> <p>hCAIX-IN-12 (0-50 μM; 0-48 h) inhibits the colony formation in a dose-dependent manner and 7 inhibits the migration of HCT-116 cells[1].</p> <p>hCAIX-IN-12 (6.0 μM; 48 h) induces apoptosis in HCT-116 cells[1].</p> <p>hCAIX-IN-12 (6.0 μM; 24,48 h) increases in the levels of ROS in HCT-116 cells[1].</p> <p>hCAIX-IN-12 causes depletion of HCT-116 cells in the G₀/G₁ (P2 65.21%) phase with an increase in the accumulation of cells in G₂/M (P4 18.95%) phase[1].</p> <p>hCAIX-IN-12 has high binding affinity for CAIX and substantial affinity for HSA[1].</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>

REFERENCES

[1]. Shamsi F, et al. Synthesis and SAR studies of novel 1,2,4-oxadiazole-sulfonamide based compounds as potential anticancer agents for colorectal cancer therapy. Bioorg Chem. 2020 May;98:103754.

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

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