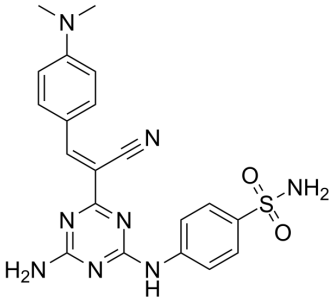
hCAIX-IN-16

Cat. No.:	HY-151630
CAS No.:	2849348-38-3
Molecular Formula:	$C_{20}H_{20}N_8O_2S$
Molecular Weight:	436.49
Target:	Carbonic Anhydrase
Pathway:	Metabolic Enzyme/Protease
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description

hCAIX-IN-16 (Compound 12d) is hCA IX inhibitor, with K_i values of 190.0 and 187.9 nM for hCA IX and hCA XII, respectively. hCAIX-IN-16 can arrest the cell cycle of breast cancer MDA-MB-468 in G0-G1 and S phase and induce apoptosis. hCAIX-IN-16 shows good broad-spectrum anticancer activity and can be used for cancer research[1].

In Vitro

hCAIX-IN-16 (3.99 μM; 24 h) arrests cell growth in G0-G1 and S phases in MDA-MB-468 cells[1].
hCAIX-IN-16 (10 μM) inhibits the growth of 44 cancer cell lines with GI% ≥ 10% and shows GI% ≥ 50% against leukemia, (CCRF-CEM, RPMI-8226 and SR) and breast cancer cell lines (T-47D and MDA-MB-468)[1].
hCAIX-IN-16 induces cell death by the apoptotic mechanism in MDA□MB□468 cells[1].
Inhibits (under hypoxic conditions) MDA-MB-468 and CCRF-CM cells with IC_{50}s of 3.99 and 4.51 μM, respectively[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Cell Cycle Analysis[1]

Cell Line:	MDA-MB-468
Concentration:	3.99 μM
Incubation Time:	24 h
Result:	Induced an increase in cells in G0-G1 and S phases with concurrent significant decrease in G2/M phase.

REFERENCES

[1]. Zain-Alabdeen AI, et al. Synthesis and anticancer activity of new benzensulfonamides incorporating s-triazines as cyclic linkers for inhibition of carbonic anhydrase IX. Sci Rep. 2022 Oct 6;12(1):16756.

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

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