

hCAIX-IN-16

Chemical Properties

CAS No. :	2849348-38-3
Formula:	C ₂₀ H ₂₀ N ₈ O ₂ S
Molecular Weight:	436.49
Storage:	Powder: -20°C for 3 years In solvent: -80°C for 1 year Actual storage temperature shall be subject to the COA.

Biological Description

Description	hCAIX-IN-16 (Compound 12d), an inhibitor of hCA IX, exhibits inhibition constants (K _i) of 190.0 nM for hCA IX and 187.9 nM for hCA XII. It can arrest the cell cycle in the G ₀ -G ₁ and S phases and induce apoptosis in MDA-MB-468 breast cancer cells. Demonstrating broad-spectrum anticancer activity, hCAIX-IN-16 is a potential tool for cancer research [1].
Targets(IC ₅₀)	Carbonic Anhydrase
In vitro	hCAIX-IN-16, at a concentration of 3.99 μM for 24 hours, induces cell cycle arrest in the G ₀ -G ₁ and S phases in MDA-MB-468 cells [1]. At a higher concentration of 10 μM, it demonstrates growth inhibition in 44 cancer cell lines, with a growth inhibition (GI%) of at least 10%. It exhibits more pronounced inhibition, with GI% surpassing 50%, in certain leukemia (CCRF-CEM, RPMI-8226, and SR) and breast cancer (T-47D and MDA-MB-468) cell lines [1]. The compound also promotes apoptosis in MDA-MB-468 cells [1]. Under hypoxic conditions, hCAIX-IN-16 displays IC ₅₀ values of 3.99 and 4.51 μM against MDA-MB-468 and CCRF-CM cells, respectively [1].

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.291 mL	11.455 mL	22.910 mL
5 mM	0.4582 mL	2.291 mL	4.582 mL
10 mM	0.2291 mL	1.1455 mL	2.291 mL
50 mM	0.0458 mL	0.2291 mL	0.4582 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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