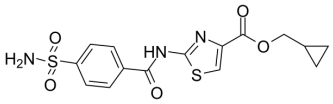
hCAI/II-IN-4

Cat. No.:	HY-147925
CAS No.:	2480284-01-1
Molecular Formula:	$C_{15}H_{15}N_3O_5S_2$
Molecular Weight:	381.43
Target:	Carbonic Anhydrase
Pathway:	Metabolic Enzyme/Protease
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	hCAI/II-IN-4 (compound 6d) is a potent dual hCA I/II inhibitor with K_i values of 16.95, 15.22 and 27.04 nM for hCA I, hCA II and hCA Ⅸ, respectively. hCAI/II-IN-4 has anti-hypoxia activities and low toxicity. hCAI/II-IN-4 can be used for acute mountain sickness (AMS) research[1].
IC_{50} & Target	K_i:16.95 nM (hCA I)、15.22 nM (hCA II) and 27.04 nM (hCA Ⅸ)

In Vitro

hCAI/II-IN-4 (compound 6d) (5-200μM; 48 hours) has no apparent cytotoxicity in HEK293 cells[1].

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

Cell Cytotoxicity Assay[1]

Cell Line:	HEK293 cells
Concentration:	5, 25, 50, 100 and 200 μM
Incubation Time:	48 hours
Result:	The cell viability rate was higher than 60%.

In Vivo

hCAI/II-IN-4 (compound 6d) (400-2000 mg/kg; p.o.; Male BLAB/c mice of hypoxia) has no apparent toxic effect in vivo[1].

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

Animal Model:	Male BLAB/c mice of hypoxia[1]
Dosage:	400, 500 and 2000 mg/kg
Administration:	Oral administration
Result:	Prolonged the survival time of mice by 29.3% compared with that of the blank control group.

REFERENCES

[1]. Yang C, et al. N-Quinary heterocycle-4-sulphamoylbenzamides exert anti-hypoxic effects as dual inhibitors of carbonic anhydrases I/II. Bioorg Chem. 2020 Jul;100:103931.

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