hCAI/II-IN-6

Cat. No.: HY-148135

CAS No.: 694466-00-7

Molecular Formula: $C_{19}H_{24}N_4O_3S$

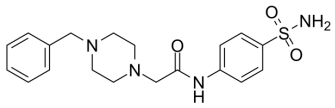
Molecular Weight: 388.48

Target: Carbonic Anhydrase

Pathway: Metabolic Enzyme/Protease

Storage:

Powder	-20°C	3 years
In solvent	-80°C	6 months
	-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 250 mg/mL (643.53 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	2.5741 mL	12.8707 mL	25.7414 mL
	5 mM	0.5148 mL	2.5741 mL	5.1483 mL
	10 mM	0.2574 mL	1.2871 mL	2.5741 mL

Please refer to the solubility information to select the appropriate solvent.

BIOLOGICAL ACTIVITY

Description

hCAI/II-IN-6 is an orally active human carbonic anhydrase (CA) inhibitor. hCAI/II-IN-6 selectively inhibits hCA II and hCA VII isoforms with K_i values of 220, 4.9, 6.5 and ⊠50000 nM for hCA I, hCA II , hCA VII and hCA XII respectively. hCAI/II-IN-6 shows anticonvulsant activity and anti maximal electroshock (MES) activity in vivo. hCAI/II-IN-6 can be used for the research of epilepsy[1].

In Vitro

hCAI/II-IN-6 (0-50 μM) inhibits hCA I, hCA II , hCA VII and hCA XII activities with K_i values of 220, 4.9, 6.5 and ⊠50000 nM, respectively[1].

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

In Vivo

hCAI/II-IN-6 (30-100mg/kg; i.p. once) shows good anticonvulsant effect in vivo[1].

hCAI/II-IN-6 (30 mg/kg; p.o. once) shows anti-MES activity in vivo[1].

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

Animal Model:	Swiss albino mice[1]

Dosage:	30 and 100 mg/kg
Administration:	Intraperitoneal injection; 30-100 mg/kg once
Result:	Provided seizure attenuation and good anticonvulsant effect, and showed an ED_{50} of 13.7mg/kg in anticonvulsant quantification study.

Animal Model:	Wistar albino rats[1]
Dosage:	30 mg/kg
Administration:	Oral gavage; 30 mg/kg once
Result:	Showed anti-MES activity and significant protection from seizures up to 1h of drug administration and action was gone reduced after 1h.

REFERENCES

[1]. Mishra CB, et al. Discovery of Benzenesulfonamides with Potent Human Carbonic Anhydrase Inhibitory and Effective Anticonvulsant Action: Design, Synthesis, and Pharmacological Assessment. J Med Chem. 2017 Mar 23;60(6):2456-2469.

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