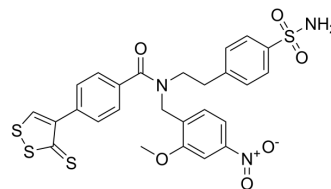


hCAIX/XII-IN-6

Cat. No.:	HY-151472
Molecular Formula:	C ₂₆ H ₂₃ N ₃ O ₆ S ₄
Molecular Weight:	601.74
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/XII-IN-6 is an orally active carbonic anhydrase (CA) inhibitor. hCAIX/XII-IN-6 inhibits human CA isoforms hCA I, II, IV, IX, and XII with K _i values of 6697 nM, 2950 nM, 4093 nM, 4.1 nM and 7.7 nM, respectively. hCAIX/XII-IN-6 can be used for the research of rheumatoid arthritis (RA) ^[1] .		
IC₅₀ & Target	hCA II 2950 nM (K _i)	hCA IX 4.1 nM (K _i)	hCA XII 7.7 nM (K _i)
In Vitro	hCAIX/XII-IN-6 has inhibition activitr for human CA isoforms hCA I, II, IV, IX, and XII with K _i values of 6697 nM, 2950 nM, 4093 nM, 4.1 nM and 7.7 nM, respectively ^{[1][1]} . hCAIX/XII-IN-6 (150 μM) exhibits a weaker H2S releas ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.		
In Vivo	hCAIX/XII-IN-6 (oral; 1, 10, 30 mg/kg; single) completely reverts the pain state 45 min after administration and enhances antihyperalgesic effect in vivo ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.		
	Animal Model:	adjuvant-induced arthritis rat model ^[1]	
	Dosage:	1, 10, 30 mg/kg	
	Administration:	oral, single	
	Result:	Evoked an antihypersensitivity effect in a dose-dependent manner. Reduced spontaneous pain in a dose-dependent manner with a peak of efficacy between 30 and 45 min.	

REFERENCES

[1]. Alessandro Bonardi, et al. Development of Hydrogen Sulfide-Releasing Carbonic Anhydrases IX- and XII-Selective Inhibitors with Enhanced Antihyperalgesic Action in a Rat Model of Arthritis. J Med Chem. 2022 Sep 19.

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

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA