

## Carbonic Anhydrase 5B Protein, Human (His)

Cat. No.:	HY-P7721
Synonyms:	rHuCarbonic Anhydrase 5B, His; Carbonic Anhydrase 5B Mitochondrial; Carbonate Dehydratase VB; Carbonic Anhydrase VB; CA5B
Species:	Human
Source:	E. coli
Accession:	Q9Y2D0 (C34-P317)
Gene ID:	11238
Molecular Weight:	Approximately 33.0 kDa

### PROPERTIES

AA Sequence	C S L Y T C T Y K T    R N R A L H P L W E    S V D L V P G G D R    Q S P I N I R W R D S V Y D P G L K P L    T I S Y D P A T C L    H V W N N G Y S F L    V E F E D S T D K S V I K G G P L E H N    Y R L K Q F H F H W    G A I D A W G S E H    T V D S K C F P A E L H L V H W N A V R    F E N F E D A A L E    E N G L A V I G V F    L K L G K H H K E L Q K L V D T L P S I    K H K D A L V E F G    S F D P S C L M P T    C P D Y W T Y S G S L T T P P L S E S V    T W I I K K Q P V E    V D H D Q L E Q F R    T L L F T S E G E K E K R M V D N F R P    L Q P L M N R T V R    S S F R H D Y V L N    V Q A K P K P A T S Q A T P H H H H H H
Biological Activity	The enzyme activity of this recombinant protein is testing in progress, we cannot offer a guarantee yet.
Appearance	Solution.
Formulation	Supplied as a 0.2 µm filter solution of 20 mM Tris-HCl, 100 mM NaCl, pH 8.0.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	N/A
Storage & Stability	Stored at -80°C for 1 year. It is stable at -20°C for 3 months after opening. It is recommended to freeze aliquots at -80°C for extended storage. Avoid repeated freeze-thaw cycles.
Shipping	Shipping with dry ice.

### DESCRIPTION

Background	Thea-CA gene family includes at least seven isoenzymes (CA-I-VI and CA-IX) that provide bicarbonate ions and protons for the regulation of pH homeostasis. Physiologically, CA-V is known to provide bicarbonate ions for the first enzyme in the urea cycle, carbamoyl-phosphate synthetase I, and for the first step of gluconeogenesis, in which pyruvate carboxylase converts
------------	---

---

pyruvate into oxaloacetate.

---

## REFERENCES

---

[1]. A K Parkkila, et al. Expression of carbonic anhydrase V in pancreatic beta cells suggests role for mitochondrial carbonic anhydrase in insulin secretion. J Biol Chem. 1998 Sep 18;273(38):24620-3.

---

**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](mailto:tech@MedChemExpress.com)

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