



# Recombinant Human Carbonic anhydrase 5B, mitochondrial (CA5B)

<b>Product Code</b>	CSB-EP896871HU-B
<b>Abbreviation</b>	CA5B
<b>Storage</b>	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.
<b>Uniprot No.</b>	Q9Y2D0
<b>Product Type</b>	Recombinant Protein
<b>Immunogen Species</b>	Homo sapiens (Human)
<b>Purity</b>	>85% (SDS-PAGE)
<b>Sequence</b>	CSLYTCT YKTRNRALHP LWESVDLVPG GDRQSPINIR WRDSVYDPGL KPLTISYDPA TCLHVNNGY SFLVEFEDST DKSVIKGGPL EHNRYRLKQFH FWGAIDAWG SEHTVDSKCF PAELHLVHWN AVRFENFEDA ALEENGLAVI GVFLKLGKHH KELQKLVDTL PSIKHKDALV EFGSFDPSCL MPTCPDYWTY SGSLTTPPLS ESVTWIIKKQ PVEVDHDQLE QFRTLLFTSE GEKEKRMVDN FRPLQPLMNR TVRSSFRHDY VLNVQAKPKP ATSQATP
<b>Source</b>	E.coli
<b>Target Names</b>	CA5B
<b>Protein Names</b>	Recommended name: Carbonic anhydrase 5B, mitochondrial EC= 4.2.1.1 Alternative name(s): Carbonate dehydratase VB Carbonic anhydrase VB Short name= CA-VB
<b>Expression Region</b>	34-317
<b>Notes</b>	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
<b>Tag Info</b>	Tag type will be determined during the manufacturing process.
<b>Protein Length</b>	Full Length of Mature Protein
<b>Target Details</b>	Carbonic anhydrases (CAs) are a large family of zinc metalloenzymes that catalyze the reversible hydration of carbon dioxide. They participate in a variety of biological processes, including respiration, calcification, acid-base balance, bone resorption, and the formation of aqueous humor, cerebrospinal fluid, saliva, and gastric acid. They show extensive diversity in tissue distribution and in their subcellular localization. CA VB is localized in the mitochondria and shows the highest sequence similarity to the other mitochondrial CA, CA VA. It has a wider tissue distribution than CA VA, which is restricted to the liver. The differences in tissue distribution suggest that the two mitochondrial carbonic anhydrases evolved to assume different physiologic roles.

**Reconstitution**

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL. We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference.

**Shelf Life**

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