



Recombinant Protein Technical Manual  
Recombinant Human Carbonic Anhydrase 5B/CA5B  
Protein (His Tag)  
RPES4278

### Product Data:

**Product SKU:** RPES4278

**Size:** 10µg

**Species:** Human

**Expression host:** E. coli

**Uniprot:** Q9Y2D0

### Protein Information:

**Molecular Mass:** 33.8 kDa

**AP Molecular Mass:** 33 kDa

**Tag:** C-6His

**Bio-activity:**

**Purity:** > 95 % as determined by reducing SDS-PAGE.

**Endotoxin:** < 1.0 EU per µg as determined by the LAL method.

**Storage:** Store at < -20°C, stable for 6 months. Please minimize freeze-thaw cycles.

**Shipping:** This product is provided as liquid. It is shipped at frozen temperature with blue ice/gel packs. Upon receipt, store it immediately at < -20°C.

**Formulation:** Supplied as a 0.2 µm filtered solution of 20mM TrisHCl, 100mM NaCl, pH 8.0.

**Reconstitution:** Please refer to the printed manual for detailed information.

**Application:**

**Synonyms:** Carbonic Anhydrase 5B Mitochondrial; Carbonate Dehydratase VB; Carbonic Anhydrase VB; CA-VB; CA5B

## Immunogen Information:

**Sequence:** Cys34-Pro317

## Background:

Carbonic Anhydrase 5B (CA5B) is a member of alpha-carbonic anhydrase family (CAs) that catalyze the reversible hydration of carbon dioxide. CAs is associated with many biological processes, including calcification, respiration, bone resorption, acid-base balance and the formation of aqueous humor. CA5B is highly expressed in heart, pancreas, kidney, placenta, lung, and skeletal muscle, but it is restricted to the liver. CA5B is localized in the mitochondria and shows the highest sequence similarity to the other mitochondrial CA, CA-VA. CA5B is inhibited by coumarins, sulfonamide derivatives such as acetazolamide (AZA), saccharin, and Foscarnet.