



## Recombinant Protein Technical Manual

**Recombinant Human Carbonic Anhydrase 7/CA7  
Protein (His Tag)(Active)**  
RPES3433

### Product Data:

**Product SKU:** RPES3433

**Size:** 50µg

**Species:** Human

**Expression host:** E. coli

**Uniprot:** P43166

### Protein Information:

**Molecular Mass:** 31 kDa

**AP Molecular Mass:** 33 kDa

**Tag:** C-His

**Bio-activity:** Measured by its esterase activity. The activity is >20 pmoles/min/µg.

**Purity:** > 96 % as determined by reducing SDS-PAGE.

**Endotoxin:** Please contact us for more information.

**Storage:** Lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.

**Shipping:** This product is provided as lyophilized powder which is shipped with ice packs.

**Formulation:** Lyophilized from sterile PBS, pH 7.4

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

**Application:**

**Synonyms:** Carbonic Anhydrase 7; Carbonate Dehydratase VII; Carbonic Anhydrase VII; CA-VII; CA7; CAVII

## Immunogen Information:

**Sequence:** Met 1-Ala 264

## Background:

Carbonic anhydrase 7, also known as carbonate dehydratase VII, carbonic anhydrase VII, CA-VII and CA7, is a cytoplasm protein which belongs to the alpha-carbonic anhydrase family. Carbonic anhydrases 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. Carbonic anhydrases show extensive diversity in tissue distribution and in their subcellular localization. CA7 / CA-VII is predominantly expressed in the salivary glands. Alternative splicing in the coding region results in multiple transcript variants encoding different isoforms.