



# Recombinant Protein Technical Manual

**Recombinant Human CA5A/CA-VA Protein (His Tag)(Active)**  
RPES2596

## Product Data:

**Product SKU:** RPES2596

**Size:** 10µg

**Species:** Human

**Expression host:** E. coli

**Uniprot:** NP\_001730.1

## Protein Information:

**Molecular Mass:** 31.6 kDa

**AP Molecular Mass:** 33 kDa

**Tag:** C-His

**Bio-activity:** Measured by its esterase activity. The specific activity is >500 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 50mM NaAc, 50mM NaCl, 0.05% Brij 35, pH 5.0

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

**Application:**

**Synonyms:** CA5;CA5AD;CA5D;Carbonic Anhydrase VA;CAV;CAVA;GS1-21A4.1

## Immunogen Information:

**Sequence:** Ala 40-Ser 305

## Background:

Carbonic anhydrase 5A, mitochondrial, also known as Carbonate dehydratase VA, Carbonic anhydrase VA, CA-VA and CA5A, is a member of the alpha-carbonic anhydrase family. Carbonic anhydrases (CAs) are a large family of zinc metalloenzymes first discovered in 1933 that catalyze the reversible hydration of carbon dioxide. CAs 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. CA5A / CA-VA is activated by histamine, L-adrenaline, L- and D-histidine, and L- and D-phenylalanine. It is inhibited by coumarins, sulfonamide derivatives such as acetazolamide and Foscarnet (phosphonoformate trisodium salt).