

# Human Carbonic Anhydrase VII / CA7 Protein (His Tag)

Catalog Number: 12147-H08E



Sino Biological  
Biological Solution Specialist

## General Information

### Gene Name Synonym:

CAVII

### Protein Construction:

A DNA sequence encoding the human CA7 (P43166) (Met 1-Ala 264) was fused with a polyhistidine tag at the C-terminus.

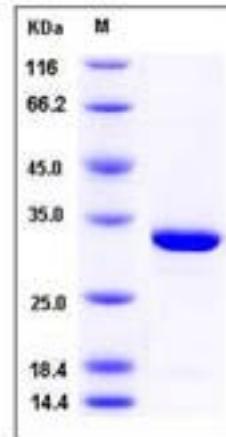
Source: Human

Expression Host: E. coli

## QC Testing

Purity: > 96 % as determined by SDS-PAGE

### SDS-PAGE:



### Bio Activity:

Measured by its esterase activity . The activity is >20 pmoles/min/μg.

### Endotoxin:

Please contact us for more information.

### Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

Predicted N terminal: Met

### Molecular Mass:

The recombinant human CA7 consisting of 274 amino acids and has a calculated molecular mass of 31 kDa. It migrates as an approximately 33 kDa band in SDS-PAGE under reducing conditions.

### Formulation:

Lyophilized from sterile PBS, pH 7.4

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

## Usage Guide

### Storage:

Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

### Reconstitution:

Detailed reconstitution instructions are sent along with the products.

## Protein Description

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.

## References

- 1.Montgomery J.C., et al., 1991, Genomics 11:835-848.
- 2.Temperini C., et al., 2006, Chemistry 12:7057-7066.
- 3.Temperini C., et al., 2007, Bioorg. Med. Chem. Lett. 17:628-635.

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