

# Recombinant human Carbonic Anhydrase X/CA10 protein

Catalog Number: ATGP4115

## PRODUCT INFORMATION

---

### Expression system

HEK293

### Domain

22-328aa

### UniProt No.

Q9NS85

### NCBI Accession No.

NP\_064563.1

### Alternative Names

Carbonic anhydrase-related protein 10, Carbonic anhydrase-related protein X, CA-RP X, CARP X, carbonic anhydrase X, Cerebral protein 15, hucep-15, UNQ533/PRO1076, epididymis secretory sperm binding protein

## PRODUCT SPECIFICATION

---

### Molecular Weight

36.3kDa (317aa)

### Concentration

0.5mg/ml (determined by Absorbance at 280nm)

### Formulation

Liquid in. Phosphate-Buffered Saline (pH 7.4) containing 10% glycerol

### Purity

> 95% by SDS-PAGE

### Endotoxin level

< 1 EU per 1ug of protein (determined by LAL method)

### Biological Activity

Specific activity is > 150 pmol/min/ug, and is defined as the amount of enzyme that hydrolyze 1pmole of p-nitrophenyl acetate to p-nitrophenol per minute at pH8.0 at 37°C.

### Tag

His-Tag

### Application

SDS-PAGE, Enzyme Activity

### Storage Condition

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

# Recombinant human Carbonic Anhydrase X/CA10 protein

Catalog Number: ATGP4115

## BACKGROUND

### Description

Carbonic anhydrase X, also known as CA10, belongs to the CA family of zinc metalloenzymes. It catalyzes the reversible hydration of carbon dioxide in various biological processes such as respiration, renal tubular acidification and bone resorption. Also an acatalytic member of the alpha-carbonic anhydrase subgroup, and it is thought to play a role in the central nervous system, especially in brain development. Recombinant human Carbonic Anhydrase X/CA10, fused to His-tag at C-terminus, was expressed in HEK293 cell and purified by using conventional chromatography techniques.

### Amino acid Sequence

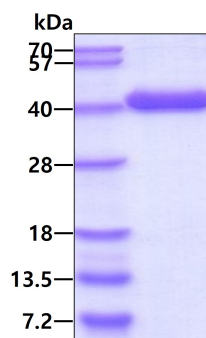
```
<DGSM>QQNSPK IHEGWWAYKE VVQGSFVPVP SFWGLVNSAW NLCSVGKRQS PVNIETSHMI FDPFLTPLRI  
NTGGRKVSQT MYNTGRHVSL RLDKEHLVNI SGGPMTYSHR LEEIRLHFGS EDSQGSEHLL NGQAFSGEVQ LIHYNHELYT  
NVTEAAKSPN GLVVVSIFIK VSDSSNPFLN RMLNRDTITR ITYKNDAYLL QGLNIEELYP ETSSFITYDG SMTIPPCYET  
ASWIIMNKPV YITRMQMHSR RLLSQNQPSQ IFLSMSDNFR PVQPLNRCI RTNINFSLQG KDCPNRAQK LQYRVNEWLL  
K<HHHHHH>
```

### General References

Taniuchi K., et al, (2002) Brain Res. Mol. Brain Res. 109:207.  
Okamoto N., et al, (2001) Biochim. Biophys. Acta. 1518:311-316.  
Hewett-Emmett, D. and R.E Tashian (1996) Mol. Phylogenet. Evol. 5:50-77.

## DATA

### SDS-PAGE



3ug by SDS-PAGE under reducing condition and visualized by coomassie blue stain