

# Recombinant human Carbonic Anhydrase 8/CA8 protein

Catalog Number: ATGP1388

## PRODUCT INFORMATION

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### Expression system

E.coli

### Domain

1-290aa

### UniProt No.

P35219

### NCBI Accession No.

NP\_004047

### Alternative Names

Carbonic anhydrase-related protein, CA-VIII, CALS, CAMRQ3, CARP

## PRODUCT SPECIFICATION

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### Molecular Weight

35.5 kDa (314aa) confirmed by MALDI-TOF (Molecular weight on SDS-PAGE will appear higher)

### Concentration

1mg/ml (determined by Bradford assay)

### Formulation

Liquid in. 20mM Tris-HCl buffer (pH 8.0) containing 20% glycerol, 1mM DTT

### Purity

> 90% by SDS-PAGE

### Tag

His-Tag

### Application

SDS-PAGE

### 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.

## BACKGROUND

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### Description

CA8 was initially named CA-related protein because of sequence similarity to other known carbonic anhydrase genes. However, this protein lacks carbonic anhydrase activity (i. e., the reversible hydration of carbon dioxide). It continues to carry a carbonic anhydrase designation based on clear sequence identity to other members of the carbonic anhydrase gene family. Defects in CA8 are the cause of cerebellar ataxia mental retardation and dysequilibrium syndrome type 3 (CMARQ3). Recombinant human CA8 protein fused to His-tag at N-terminus, was expressed in E. coli and purified by using conventional chromatography.

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## Amino acid Sequence

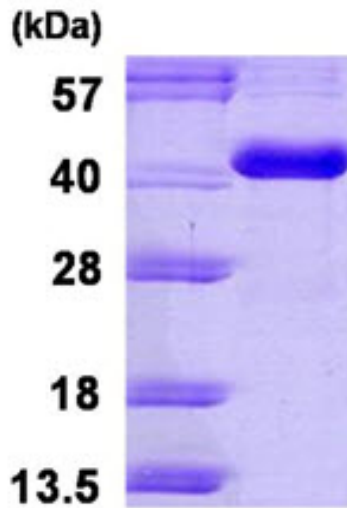
MGSSHHHHHH SSGLVPRGSH MGSHMADLSF IEDTVAFPEK EEDEEEEEEG VEWGYEEGVE WGLVFPDANG EYQSPINLNS  
REARYDPSLL DVRLSPNYVV CRDCEVTNDG HTIQVILKSK SVLSGGPLPQ GHEFELYEVR FHWGRENQRG SEHTVNFKAF  
PMELHLIHWN STLFSGIDEA VGKPHGIAII ALFVQIGKEH VGLKAVTEIL QDIQYKGKSK TIPCFNPNTL LPDPLLRDYW  
VYEGSLTIPP CSEGVTWILF RYPLTISQLQ IEEFRRLRTH VKGAELVEGC DGILGDNFRP TQPLSDRVIR AAFQ

## General References

Turkmen S., et al. (2009) PLoS Genet. 5:E1000487-E1000487  
Skaggs L.A., et al. (1993) Gene. 126:291-292

## DATA

### SDS-PAGE



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

15% SDS-PAGE (3ug)