

Recombinant human Carbonic Anhydrase 8/CA8 protein

Catalog Number: ATGP3242

PRODUCT INFORMATION

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, CA8

PRODUCT SPECIFICATION

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

Biological Activity

Specific activity is > 450pmol/min/ug, and is defined as the amount of enzyme that hydrolyze 1.0pmole of 4-nitrophenyl acetate to 4-nitrophenol per minute at pH 7.5 at 37C.

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.

BACKGROUND

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

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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.

Amino acid Sequence

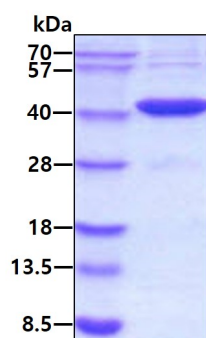
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SEHTVNFKAF PMELHLIHWN STLFGSIDEA VGKPHGIAII ALFVQIGKEH VGLKAVTEIL QDIQYKGKSK TIPCFNPNTL
LPDPLLRDYW VYEGSLTIPP CSEGVTWILF RYPLTISQLQ IEEFRRLRTH VKGAELVEGC DGILGDNFRP TQPLSDRVIR AAFQ

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