Recombinant human Carbonic Anhydrase 11/CA11 protein

Catalog Number: ATGP2219

PRODUCT INFORMATION

Expression system
E.coli

Domain
24-328aa

UniProt No.
O75493

NCBI Accession No.
NP_001208

Alternative Names
CA-XI, CARPX1, CARP2, CA-RP XI, carbonic anhydrase-related protein XI, carbonic anhydrase-related protein 2, Carbonic anhydrase-related protein 11, Carbonic anhydrase XI

PRODUCT SPECIFICATION

Molecular Weight
36.3 kDa (326aa)

Concentration
1mg/ml (determined by Bradford assay)

Formulation
Liquid in. 20mM Tris-HCl buffer (pH 8.0) containing 0.4M urea, 10% glycerol

Purity
> 85% by SDS-PAGE

Tag
His-Tag

Application
SDS-PAGE, Denatured

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
Carbonic anhydrases (CAs) 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. They show extensive diversity in tissue distribution and in their subcellular localization. CA11 is likely a secreted protein, however, radical changes at active site residues completely conserved in CA isozymes with catalytic

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activity, make it unlikely that it has carbonic anhydrase activity. It shares properties in common with two other acatalytic CA isoforms, CA VIII and CA X. CA11 is most abundantly expressed in brain, and may play a general role in the central nervous system. Recombinant human CA11 protein, fused to His-tag at N-terminus, was expressed in E. coli.

Amino acid Sequence

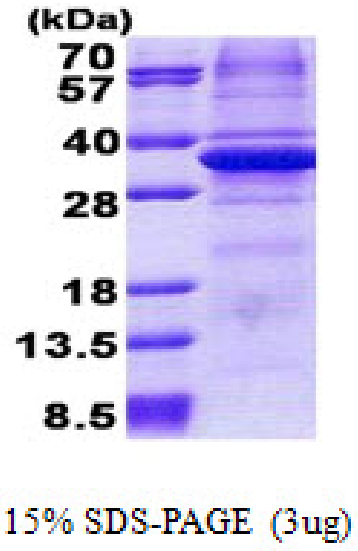
MGSSHHHHHH SSGLVPRGSH MHIGPAPDPE DWWSYKDNLQ GNFVPGPPFW GLVNAAWSLC AVGKRQSPVD VELKRVLYDP FLPPLRLSTG GEKLRGTLYN TGRHVSFLPA PRPVVNVSGG PLLYSHRLSE LRLLFGARDG AGSEHQINHQ GFSAEVQLIH FNQELYGNFS AASRGPNGLA ILSLFVNVAS TSNPFLSRLL NRDTITRISY KNDAYFLQDL SLELLFPESF GFITYQGSLS TPPCSETVTW ILIDRALNIT SLQMHSLRLL SQNPPSQIFQ SLSGNSRPLQ PLAHRALRGN RDPRHPERRC RGPNYRLHVD GVPHGR

General References

Fujikawa-Adachi K., et al. (1999) Biochim. Biophys. Acta. 1431:518-524

DATA

SDS-PAGE



15% SDS-PAGE (3ug)

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