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℃.

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.

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BACKGROUND

Description

Carbonic anhydrase X, also known as CA10, belongs to the CA family of zinc metalloenzymes. It is catalyze 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

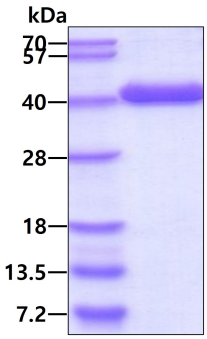
<DGSM>QQNSPK IHEGWWAYKE VVQGSFVPVP SFWGLVNSAW NLCSVGKRQS PVNIETSHMI FDPFLTPLRI NTGGRKVSGT MYNTGRHVSL RLDKEHLVNI SGGPMTYSHR LEEIRLHFGS EDSQGSEHLL NGQAFSGEVQ LIHYNHELYT NVTEAAKSPN GLVVVSIFIK VSDSSNPFLN RMLNRDTITR ITYKNDAYLL QGLNIEELYP ETSSFITYDG SMTIPPCYET ASWIIMNKPV YITRMQMHSL RLLSQNQPSQ IFLSMSDNFR PVQPLNNRCI RTNINFSLQG KDCPNNRAQK 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