Recombinant human Carbonic Anhydrase 2/CA2 protein

Catalog Number: ATGP0325

PRODUCT INFORMATION

Expression system
E.coli

Domain
1-260aa

UniProt No.
P00918

NCBI Accession No.
NP_000058.1

Alternative Names
Carbonic anhydrase II, CA-II, Carbonate dehydratase II, Carbonic anhydrase C, CAC, Cyanamide hydratase CA2, Car2

PRODUCT SPECIFICATION

Molecular Weight
29.2 kDa (260aa) confirmed by MALDI-TOF

Concentration
1mg/ml (determined by Bradford assay)

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

Purity
> 95% by SDS-PAGE

Biological Activity
Specific activity is > 7,000pmol/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 8.0 at 37C.

Tag
Non-Tagged

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
Carbonic anhydrase 2 (CA2) is one of fourteen forms of human alpha carbonic anhydrases. Carbonic anhydrase catalyzes reversible hydration of carbon dioxide. CA2 is a cytosolic enzyme with the highest activity among all

Recombinant human Carbonic Anhydrase 2/CA2 protein

Catalog Number: ATGP0325

known CAs. Mutations in the CA2 gene result in the CA2 deficiency syndrome, an autosomal recessive disorder that produces osteopetrosis, renal tubular acidosis and cerebral calcification. Recombinant human CA2 was expressed in E. coli and purified by using conventional chromatography.

Amino acid Sequence

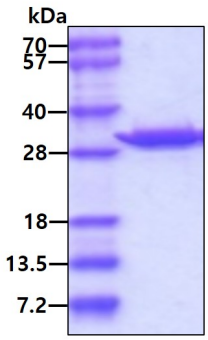
MSHHWGYGKH NGPEHWHKDF PIAKGERQSP VDIDTHTAKY DPSLKPLSVS YDQATSLRIL NNGHAFNVEF DDSQDKAVLK GGPLDGTYRL IQFHFHWGSL DGQGSEHTVD KKKYAAELHL VHWNTKYGDF GKAVQQPDGL AVLGIFLKVG SAKPGLQKVV DVLDSIKTKG KSADFTNFDP RGLLPESLDY WTYPGSLTTP PLLECVTWIV LKEPISVSSE QVLKFRKLNF NGEGEPEELM VDNWRPAQPL KNRQIKASFK

General References

Hu PY., et al. (1992). Hum Mutat. 1(4):288-92
Venta PJ., et al. (1991). Am J Hum Genet. 49(5):1082-90

DATA

SDS-PAGE



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