Recombinant E.coli Carbonic anhydrase 2/CA2 protein

Catalog Number: ATGP3240

PRODUCT INFORMATION

Expression system
E.coli

Domain
1-220aa

UniProt No.
P61517

NCBI Accession No.
NP_414668

Alternative Names
Carbonate dehydratase, CAN, ECK0125, JW0122, yadF

PRODUCT SPECIFICATION

Molecular Weight
27.2 kDa (240aa) confirmed by MALDI-TOF

Concentration
1mg/ml (determined by Bradford assay)

Formulation
Liquid in. 20mM Tris-HCl buffer (pH 8.0) containing 1mM DTT, 10% glycerol

Purity
> 95% by SDS-PAGE

Biological Activity
Specific activity is > 1,000pmol/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 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
Carbonic anhydrase (CA) is an enzyme that catalyses rapid conversion of carbon dioxide to bicarbonate and protons (CO2 + H2O HCO3- + H+). Most carbonic anhydrases contain a zinc ion in their active site and the primary function of this enzyme is known to maintain acid-base balance in blood and other tissues, and to help

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transport carbon dioxide of tissues. Carbonic anhydrases have been found in all kingdoms of life. Recombinant carbonic anhydrase fused to His-tag, was expressed in E. coli and purified by conventional chromatography techniques.

Amino acid Sequence

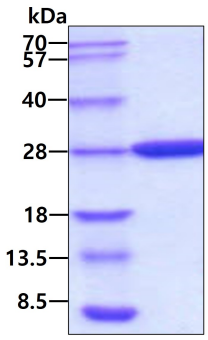
<MGSSHHHHHH SSGLVPRGSH> MKDIDTLISN NALWSKMLVE EDPGFFEKLA QAQKPRFLWI GCSDSRVPAE RLTGLEPGEL FVHRNVANLV IHTDLNCLSV VQYAVDVLEV EHIIICGHYG CGGVQAAVEN PELGLINNWL LHIRDIWFKH SSLLGEMPQE RRLDTLCELN VMEQVYNLGH STIMQSAWKR GQKVTIHGWA YGIHDGLLRD LDVTATNRET LEQRYRHGIS NLKLKHANHK

General References

Lindskog S., et al :(1997) Pharmacol Ther.74(1):1-20.
Sawaya MR., et al (2006) J Biol Chem. 281(11):7546-55.

DATA

SDS-PAGE



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