Recombinant human Carbonic Anhydrase 3/CA3 protein

Catalog Number: ATGP0503

PRODUCT INFORMATION

Expression system
E.coli

Domain
1-260aa

UniProt No.
P07451

NCBI Accession No.
AAH04897

Alternative Names
Carbonic anhydrase III, Carbonate dehydratase III, Car3, CAIII, CA3

PRODUCT SPECIFICATION

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

Concentration
1mg/ml (determined by Bradford assay)

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

Purity
> 90% by SDS-PAGE

Tag
Non-Tagged

Application
SDS-PAGE

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
CA3, also known as carbonic anhydrase III, is an enzyme that catalyses rapid conversion of carbon dioxide to bicarbonate and protons (CO2 + H2O = HCO3 + H+). This protein is involved in a variety of biological processes, including respiration, calcifica-tion, acid-base balance, bone resorption and the formation of aqueous humor, cerebrospinal fluid, saliva and gastric juice. It contains 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 transport carbon dioxide of tissues. Recombinant CA3 protein was expressed in E. coli and purified by using conventional

chromatography techniques.

Amino acid Sequence

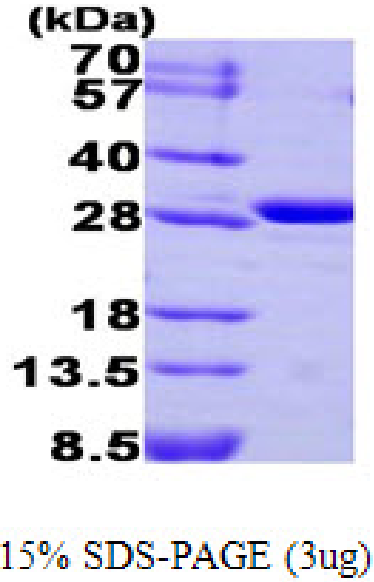
MAKEWGYASH NGPDHWHELF PNAKGENQSP IELHTKDIRH DPSLQPWSVS YDGGSAKTIL NNGKTCRVVF DDTYDRSMLR GGPLPGPYRL RQFHLHWGSS DDHGSEHTVD GVKYAAELHL VHWNPKYNTF KEALKQRDGI AVIGIFLKIG HENGEFQIFL DALDKIKTKG KEAPFTKFDP SCLFPACRDY WTYQGSFTTP PCEECIVWLL LKEPMTVSSD QMAKLRSLLS SAENEPPVPL VSNWRPPQPI NNRVVRASFK

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



15% SDS-PAGE (3ug)

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