

AR51996PU-S

Human Carbonic anhydrase 1 (1-261, His-tag) - Purified

Alternate names:	CA-I, CA1, CAB, Carbonate dehydratase I, Carbonic anhydrase B, Carbonic anhydrase I
Quantity:	20 µg
Concentration:	1.0 mg/ml (determined by bradford assay)
Background:	Carbonic anhydrase (CA) is an enzyme that catalyses rapid conversion of carbon dioxide to bicarbonate and protons ($\text{CO}_2 + \text{H}_2\text{O} \rightarrow \text{HCO}_3^- + \text{H}^+$). 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 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.
Uniprot ID:	P00915
NCBI:	NP_001122301
GeneID:	759
Species:	Human
Source:	E. coli
Format:	State: Liquid purified protein Purity: >95% by SDS - PAGE Buffer System: 20 mM Tris-HCl buffer (pH 8.0) containing 1mM DTT, 10% glycerol.
Description:	AA Sequence: MGSSHHHHH SGLVPRGSH MASPDWGYDD KNGPEQWSKL YPIANGNNQS PVDIKTSETK HDTSLKPISV SYNPAKAEI INVGHSEFVN FEDNDNRSVL KGGPFSDSYR LFQFHFHWGS TNEHGSEHTV DGVKYSALH VAHWNSAKYS SLAEAASKAD GLAVIGVLMK VGEANPKLQK VLDALQAIKT KGKRAPFTNF DPSTLLPSSL DFWTPGSLT HPPLYESVTW IICKESISVS SEQLAQFRSL LSNVEGDNAV PMQHNNRPTQ PLKGRTVRAS F Specific Activity: Specific activity is > 300 pmol/min/ug, and is defined as the amount of enzyme that hydrolyze 1.0 pmole of 4-nitrophenyl acetate to 4-nitrophenol per minute at pH 8.0 at 37C. Molecular weight: 31.0 kDa (281aa), confirmed by MALDI-TOF
Storage:	Store undiluted at 2-8°C for one week or (in aliquots) at -20°C to -80°C for longer. Avoid repeated freezing and thawing. Shelf life: one year from despatch.
General Readings:	Nogradi A., et al. (1998). Am J Pathol. 153:1-4. Ferry JG., et al. (1999). Proc Natl Acad Sci U S A. 96(26):15184-9.

Pictures:

