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**Carbonic anhydrase 1, 1-261 aa, Human, His tag, E.coli**

**Cat.NO.: TP01423**

3th Edition

**Synonyms:**CA1, CA-I, CAB

**Description:**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.

**Form:**Liquid. In 20 mM Tris-HCl buffer (pH 8.0) containing 1mM DTT, 10% glycerol

**Molecular Weight:**31.0 kDa (281aa), confirmed by MALDI-TOF

**Sequences:**

MGSSHHHHHSSGLVPRGSHMASPDWGYDDKNGPEQWSKLYPIANGNNQSPVDIKTSETKHDTSLKPISVSYNP  
ATAKEIINVGHFSFHVNFEDNDNRSVLKGGPFSDSYRLFQFHFHWGSTNEHGSEHTVDGVKYS AELHVAHWNSAKY  
SSLAEAASKADGLAVIGVLMKVGEANPKLQKVLDALQAIKTKGKRAPFTNFDPSTLLPSSLDFTYPGSLTHPPLYE  
SVTWIICKESISVSSEQLAQFRSLLSNVEGDNAVPMQHNNRPTQPLKGRTVRASF

**Purity:**> 95% by HPLC

**Concentration:**1 mg/ml (determined by Bradford assay)

**Endotoxin Level:**<1.0 EU per 1 ug of protein (determined by LAL method)

**Storage:**Can be stored at +4°C short term (1-2 weeks). For long term storage, aliquot and store at -20°C or -70°C. Avoid repeated freezing and thawing cycles.