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**Carbonic Anhydrase, 1-220aa, E.coli, His-tagged, Recombinant, E.coli**

**Cat.NO.: TP01427**

3th Edition

**Synonyms:**Carbonate dehydratase, CAN, yadF

**Description:**Carbonic anhydrase (CA) is an enzyme that catalyses rapid conversion of carbon dioxide to bicarbonate and protons ( $\text{CO}_2 + \text{H}_2\text{O} \rightleftharpoons \text{HCO}_3^- + \text{H}^+$ ). 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.

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

**Molecular Weight:**27kDa (240aa), confirmed by MALDI-TOF

**Sequences:**

MGSSHHHHHHSSGLVPRGSHMKDIDTLISNNALWSKMLVEEDPGFFEKLAQAQKPRFLWIGCSDSRVPAERLTGL  
EPGELFVHRNVANLVIHTDLNCLSVVQYAVDVLEVEHIIICGHYGGVQAAVENPELGLINNWLLHIRDIWFKHSSL  
LGEMPQERRLDLCELNVMEQVYNLGHSTIMQSAWKRQKVTIHGWAYGIHDGLLRDLDTATNRETLEQRYRHG  
ISNLKCLKHANHK

**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.