

Active Recombinant E.coli can Protein, His-tagged

Cat. No. can-395E **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant carbonic anhydrase fused to His-tag, was expressed in E.coli and purified by conventional chromatography techniques.
Species	E.coli
Source	E.coli
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. Carbonic anhydrases have been found in all kingdoms of life.
Form	Liquid. In 20 mM Tris-HCl buffer (pH 8.0) containing 1 mM DTT, 10% glycerol
Bio-activity	Specific activity is >1,000 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 7.5 at 37C.
Molecular Mass	27kDa (240aa), confirmed by MALDI-TOF
AA Sequence	MGSSHHHHHH SSGLVPRGSH MKDIDTLISN NALWSKMLVE EDPGFFEKLA QAQKPRFLWI GCSDSRVPAE RLTGLEPGEL FVHRNVANLV IHTDLNCLSV VQYAVDVLEV EHIICGHY GCGVQA AVEN PELGLINNWL LHIRDIWFKH

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SSLLGEMPQE RRLDTLCELN VMEQVYNLGH STIMQSAWKR GQKVTIHGWA
YGIHDGLLRD LDVTATNRET LEQRYRHGIS NLKLKHANHK

Purity >95% by SDS - PAGE

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

Concentration 1 mg/ml (determined by Bradford assay)

GENE INFORMATION

Gene Name [can carbonic anhydrase \[Escherichia coli str. K-12 substr. MG1655 \]](#)

Official Symbol [can](#)

Synonyms ECK0125; JW0122; yadF; carbonic anhydrase; putative carbonic anhdrase

Gene ID [944832](#)

mRNA Refseq

Protein Refseq [NP_414668](#)

MIM

UniProt ID [P61517](#)

Pathway Nitrogen metabolism, organism-specific biosystem; Nitrogen metabolism, conserved biosystem

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