

# Product information



## Carbonic anhydrase, 1-220 aa

*E.coli*, His tagged, Recombinant, *E.coli*

Cat. No. IBCAN0801

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

**NCBI Accession No.:** NP\_414668

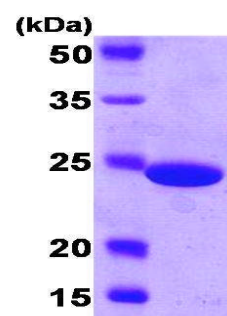
**Description:** Carbonic anhydrase (CA) is an enzyme that catalyses rapid conversion of carbon dioxide to bicarbonate and protons ( $\text{CO}_2 + \text{H}_2\text{O} \leftrightarrow \text{HCO}_3^- + \text{H}^+$ ). Most carbonic anhydrases contain a zinc ion in their active site and the primary function 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 1 mM DTT, 10% glycerol

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

**Purity:** > 95% by SDS - PAGE

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



15% SDS-PAGE (3ug)

### Sequences of amino acids:

MGSSHHHHH SSGLVPRGSH MKDIDTLISN NALWSKMLVE EDPGFFEKLA QAQKPRFLWI GCSDSRVPAE RLTGLEPGEL FVHRNVANLV  
IHTDLNCLSV VQYAVDVLEV EHIICGHYG CGGVQAAVEN PELGLINNWL LHIRDWFKH SLLGEMPQE RRLDTLCELN VMEQVYNLGH  
STIMQSAWKR GQKVTIHGWA YGIHDGLLRD LDVTATNRET LEQRYRHGIS NLKLKHANHK

### 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

**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.

For research use only. This product is not intended or approved for human, diagnostics or veterinary use.



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