



# Recombinant Rat Carbonic anhydrase 1 (Ca1)

<b>Product Code</b>	CSB-EP004364RA-B
<b>Storage</b>	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.
<b>Uniprot No.</b>	B0BNN3
<b>Product Type</b>	Recombinant Protein
<b>Immunogen Species</b>	Rattus norvegicus (Rat)
<b>Purity</b>	>85% (SDS-PAGE)
<b>Sequence</b>	ASADWGYDSKNGPDQWSKLYPIANGNNQSPIDIKTSEAKHDSSLKPVSVSYN PATAKEIVNVGHSFHVVFDSSNQSVLKGGLADSYRLTQFHFHWGNSNDHG SEHTVDGAKYSGELHLVHWN SAKYSSAAEAISKADGLAIIGVLMKVGPANPNL QKVLDALSSVKTGKRAPFTNFDPSLLPSSLDYWTYFGSLTHPPLHESVTWV ICKESISLSPEQLAQLRGLLSSAEGEPAVPVLSNHRPPQPLKGRTVRASF
<b>Research Area</b>	Others
<b>Source</b>	E.coli
<b>Target Names</b>	Ca1
<b>Protein Names</b>	Recommended name: Carbonic anhydrase 1 EC= 4.2.1.1 Alternative name(s): Carbonate dehydratase I Carbonic anhydrase I Short name= CA-I
<b>Expression Region</b>	2-261aa
<b>Notes</b>	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
<b>Tag Info</b>	Tag type will be determined during the manufacturing process.
<b>Protein Length</b>	Full Length of Mature Protein
<b>Target Details</b>	Carbonic anhydrases (CAs) are a large family of zinc metalloenzymes that catalyze the reversible hydration of carbon dioxide. They participate in a variety of biological processes, including respiration, calcification, acid-base balance, bone resorption, and the formation of aqueous humor, cerebrospinal fluid, saliva, and gastric acid. They show extensive diversity in tissue distribution and in their subcellular localization. CA1 is closely linked to CA2 and CA3 genes on chromosome 8, and it encodes a cytosolic protein which is found at the highest level in erythrocytes. Variants of this gene have been described in some populations. Multiple alternatively spliced variants, encoding the same protein, have been identified. Transcript variants of CA1 utilizing alternative polyA_sites have been described in literature.
<b>Reconstitution</b>	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL. We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final



concentration of glycerol is 50%. Customers could use it as reference.

### Shelf Life

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