

## Recombinant Human Carbonic Anhydrase I Protein

Cat. No. RHCA-100

Lot. No. (See product label)

### Introduction

**Description** Carbonic Anhydrase (CA) catalyzes the reversible reaction of  $\text{CO}_2 + \text{H}_2\text{O} = \text{HCO}_3^- + \text{H}^+$ , which is fundamental to many processes such as respiration, renal tubular acidification and bone resorption. Topics in a CA meeting (6th International Conference on the CAs, June 20-25, 2003, Slovakia) ranged from use of CAs as markers for tumor and hypoxia in clinic, as nutritional supplement in milk, and as a tool for  $\text{CO}_2$  removal and mosquito control in industry. CA1 is a cytosolic enzyme with the highest levels in erythrocytes and is a very early marker for erythroid differentiation. The activity of CA1 can also be measured by its ability to catalyze the reaction  $\text{CO}_2 + \text{H}_2\text{O} \rightarrow \text{HCO}_3^- + \text{H}^+$ , using a published method.

**Synonyms** CA1; CA-I; Car1; Carbonate dehydratase I; carbonic anhydrase 1; Carbonic anhydrase B; Carbonic Anhydrase I; carbonic anhydrase ICAB; carbonic dehydratase; EC 4.2.1.1

### Product Information

<b>Species</b>	Human
<b>Source</b>	E. coli
<b>Form</b>	Supplied as a 0.2 µm filtered solution in Tris and NaCl.
<b>EC Number</b>	EC 4.2.1.1
<b>Molecular Weight</b>	30 kDa
<b>Purity</b>	>95%
<b>Activity</b>	>10 pmol/min/µg
<b>Endotoxin Level</b>	<1.0 EU per 1 µg of the protein by the LAL method.

### Storage and Shipping Information

**Storage** Use a manual defrost freezer and avoid repeated freeze-thaw cycles. 6 months from date of receipt, -20 to -70 °C as supplied. 3 months, -20 to -70 °C under sterile conditions after opening.