

## Carbonic Anhydrase II from Bovine, Recombinant

Cat. No. NATE-1463

Lot. No. (See product label)

### Introduction

<b>Description</b>	The carbonic anhydrases (or carbonate dehydratases) form a family of enzymes that catalyze the rapid interconversion of carbon dioxide and water to bicarbonate and protons (or vice versa), a reversible reaction that occurs relatively slowly in the absence of a catalyst. The active site of most carbonic anhydrases contains a zinc ion; they are therefore classified as metalloenzymes.
<b>Applications</b>	Carbonic anhydrase is used to create carbon dioxide capture systems and to research various purification techniques. Carbonic anhydrase is also used to study acid-base regulation in fish and carbonic anhydrase type II deficiency syndrome. Bovine carbonic anhydrase II (CA II), has been widely used as a model protein in the investigation of the protein folding process.
<b>Synonyms</b>	carbonic anhydrases; carbonate dehydratases; EC 4.2.1.1; anhydrase; carbonate anhydrase; carbonic acid anhydrase; carboxyanhydrase; carbonic anhydrase A; carbonate hydro-lyase

### Product Information

<b>Species</b>	Bovine
<b>Source</b>	E. coli
<b>Appearance</b>	Colorless clear liquid
<b>Form</b>	Supplied as a solution in 20 mM Tris, pH 7.6, with 150 mM NaCl.
<b>EC Number</b>	EC 4.2.1.1
<b>CAS No.</b>	9001-03-0
<b>Molecular Weight</b>	29-31 kDa
<b>Purity</b>	>90% by SDS-PAGE
<b>Activity</b>	> 5,000 units/mg
<b>Concentration</b>	500-700 µg/ml
<b>Unit Definition</b>	One unit will decrease the pH of a 20 mM tris buffer from pH 8.3 to 6.3 per minute at 0 °C.

### Storage and Shipping Information

<b>Storage</b>	Store the product at -20 °C. After initial thawing, the enzyme should be refrozen at -20 °C in aliquots.
<b>Stability</b>	The product is stable for at least 2 years as supplied.