Creative Enzymes®

Carbonic Anhydrase II from Bovine, Recombinant

Cat. No. NATE-1463

Lot. No. (See product label)

Introduction

Description	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.
Applications	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.
Synonyms	carbonic anhydrases; carbonate dehydratases; EC 4.2.1.1; anhydrase; carbonate anhydrase; carbonic acid anhydrase; carboxyanhydrase; carbonic anhydrase A; carbonate hydro-lyase

Product Information

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

Storage and Shipping Information

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