Creative Enzymes®

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 CO2 + H2O = HCO3- + 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 CO2 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 CO2 + H2O → HCO3- + 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

Species	Human
Source	E. coli
Form	Supplied as a 0.2 μm filtered solution in Tris and NaCl.
EC Number	EC 4.2.1.1
Molecular Weight	30 kDa
Purity	>95%
Activity	>10 pmol/min/μg
Endotoxin Level	<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.