

Carbonic Anhydrase II (CA2) Active Protein | CA2 active protein

Active Carbonic Anhydrase II (CA2)

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA148249	Rat (Erythrocytes)	Rat	Activity Assay, Cell Culture

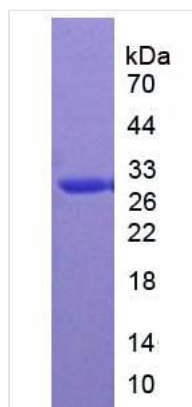
PRODUCT SYNONYMS

Carbonic Anhydrase II (CA2); Active Carbonic Anhydrase II (CA2); CA-II; CAII; Car2; CAC; Carbonate dehydratase II; Carbonic anhydrase C; CA2 active protein

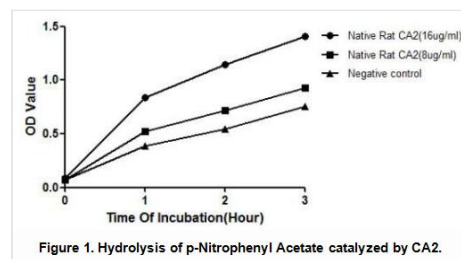
PRODUCT SPECIFICATIONS

Host	Rat (Erythrocytes)
Reactivity	Rat
Purity/Purification	> 97%
Form/Format	Freeze-dried powder
Sequence Length	260
Applicable Applications for CA2 active protein	Activity Assay, Cell Culture
Tag	N-terminal His Tag
Buffer Formulation	20mM Tris, 150mM NaCl, pH8.0, containing 1mM EDTA, 1mM DTT, 0.01% SKL, 5% Trehalose and Proclin300.
Isoelectric Point	6.9

IMAGES



SDS-PAGE



Activity

CA2 (Carbonic anhydrase 2) is an enzyme that catalyzes reversible hydration of carbon dioxide. It is essential for bone resorption and osteoclast differentiation and contributes to intracellular pH regulation in the duodenal upper villous epithelium during proton-coupled peptide absorption. It is widely accepted that CA2 also catalyzes hydrolysis of p-Nitrophenyl Acetate. Thus, a hydration assay was conducted to test the catalytic activity of CA2 using 4-Nitrophenyl Acetate (4-NPA) as substrate. Briefly, different concentrations of CA2 were incubated with 1mM 4-NPA in reaction buffer. The absorbance at the wavelength of 400nm was read per hour, and the result was shown in figure 1. It is obvious that CA2 catalyzes hydrolysis of p-Nitrophenyl Acetate.

ADDITIONAL INFORMATION

Product Categories/Family for CA2 active protein	Enzyme & Kinase; Tumor immunity; Bone metabolism
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NCBI AND UNIPROT INFORMATION

NCBI GI #	9506445
NCBI GeneID	54231
NCBI Accession #	NP_062164.1
NCBI GenBank Nucleotide #	NM_019291.1
UniProt Accession #	P27139
Molecular Weight	Predicted Molecular Weight: 29kDa Accurate Molecular Weight: 29kDa
NCBI Official Full Name	carbonic anhydrase 2
NCBI Official Synonym Full Names	carbonic anhydrase 2
NCBI Official Symbol	Car2
NCBI Official Synonym Symbols	Ca2
NCBI Protein Information	carbonic anhydrase 2
UniProt Protein Name	Carbonic anhydrase 2
UniProt Gene Name	Ca2
UniProt Synonym Gene Names	CA-II

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://www.aaabiotech.com/rat-rat-active-protein/carbonic-anhydrase-ii-ca2/148249>