

Rabbit CA2 Polyclonal Antibody | anti-CA2 antibody

CA2 Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA326185	Rabbit	Human, Mouse, Rat	ELISA, Immunohistochemistry, Western Blot

PRODUCT SYNONYMS

CA2; Polyclonal Antibody; CA2 Antibody; CA 2; CA II; CA-II; Ca2; CAC; CAH2_HUMAN; CAII; Car 2; Car2; Carbonate dehydratase II; Carbonic anhydrase 2; Carbonic anhydrase B; Carbonic anhydrase C; formerly; Carbonic anhydrase II; Carbonic dehydratase; epididymis luminal protein 76; Epididymis secretory protein Li 282; HEL-76; HEL-S-282; anti-CA2 antibody

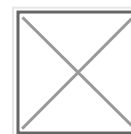
PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	IgG
Specificity	CA2 antibody detects endogenous levels of total CA2
Purity/Purification	The antiserum was purified by peptide affinity chromatography using SulfoLink Coupling Resin.
Form/Format	Liquid Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Sequence Length	260
Applicable Applications for anti-CA2 antibody	ELISA, IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	A synthesized peptide derived from human CA2
Subcellular Location	Cytoplasm.
Predicted Cross Reactivity	Dog
Similarity	Dog (83%)
Conjugation	Unconjugated
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

IMAGES


WB (Western Blot)

Western blot analysis of CA2 expression in Mouse brain lysate


WB (Western Blot)

Western blot analysis of CA2 expression in various lysates



WB (Western Blot)

Western blot analysis of Mouse kidney lysate, using CA2 Antibody. The lane on the left is treated with the antigen-specific peptide.



IHC (Immunohistochemistry)

AAA326185 at 1/100 staining Human liver cancer tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary.

ADDITIONAL INFORMATION

Related Product Information for anti-CA2 antibody

Description: Carbonic anhydrases (CA) are a family of ancient zinc metalloenzymes found in almost all living organisms. All CA can be divided into 3 distinct classes (alpha, beta, and gamma) that evolved independently and have no significant homology in sequence and overall folding. All functional CA catalyze the reversible hydration of CO₂ into HCO₃⁻ and H⁺ and contain a zinc atom in the active sites essential for catalysis. There are many isoforms of CA in mammals and they all belong to the alpha class (1, 2). CA2 is a cytosolic member of the alpha class. It is the most widely distributed isoform among the mammalian CAs (1). Defects in CA2 are associated with osteopetrosis and renal tubular acidosis (3-5). Elevated expression of CA2 is observed in patients with Alzheimer's disease and the developing brains of Down syndrome patients (6, 7). CA2 is also overexpressed in Gastrointestinal Stromal Tumors (GISTs) and is considered a useful marker for identification (8). Recently, CA2 was reported to facilitate transporter activity of the monocarboxylate transporter isoform 1 and 4 (MCT1/4) independent of its own catalytic activity (9, 10).

Function: Essential for bone resorption and osteoclast differentiation (By similarity). Reversible hydration of carbon dioxide. Can hydrate cyanamide to urea. Involved in the regulation of fluid secretion into the anterior chamber of the eye. Contributes to intracellular pH regulation in the duodenal upper villous epithelium during proton-coupled peptide absorption. Stimulates the chloride-bicarbonate exchange activity of SLC26A6.

Subunit Structure: Interacts with SLC4A4. Interaction with SLC4A7 regulates SLC4A7 transporter activity. Interacts with SLC26A6 isoform 4 (via C-terminus cytoplasmic domain).

Similarity: Belongs to the alpha-carbonic anhydrase family.

NCBI AND UNIPROT INFORMATION

NCBI GI #	4557395
NCBI GeneID	760
NCBI Accession #	NP_000058.1
NCBI GenBank Nucleotide #	NM_000067.2
UniProt Accession #	P00918; Q6F112; Q96ET9; B2R7G8
Molecular Weight	Observed: 29 kDa Predicted: 30 kDa
NCBI Official Full Name	carbonic anhydrase 2 isoform 1
NCBI Official Synonym Full Names	carbonic anhydrase 2
NCBI Official Symbol	CA2
NCBI Official Synonym Symbols	CAC; CAII; Car2; CA-II; HEL-76; HEL-S-282
NCBI Protein Information	carbonic anhydrase 2
UniProt Protein Name	Carbonic anhydrase 2
UniProt Gene Name	CA2
UniProt Synonym Gene Names	CAC; 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.

