

Rabbit anti-Human Carbonic Anhydrase XIV Monoclonal Antibody | anti-CA14 antibody

Recombinant Anti-Carbonic Anhydrase XIV Antibody, Rabbit Monoclonal

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA254937	Rabbit	Human	Immunofluorescence, Immunocytochemistry, Immunohistochemistry, ELISA

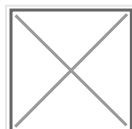
PRODUCT SYNONYMS

Carbonic Anhydrase XIV; Monoclonal Antibody; Recombinant Anti-Carbonic Anhydrase XIV Antibody; Rabbit Monoclonal; Carbonic Anhydrase XIV/CA14 Antibody; Rabbit MAb; carbonic anhydrase XIV; Anti-CA14 Antibody; Anti-CAXiV Antibody; anti-CA14 antibody

PRODUCT SPECIFICATIONS

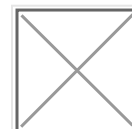
Host	Rabbit
Reactivity	Human
Clonality	Monoclonal
Isotype	Rabbit IgG
Clone Number	515
Specificity	Human Carbonic Anhydrase XIV/CA14. No cross-reactivity in ELISA with Human CARPX, Human CA12, Mouse CA14
Purity/Purification	Protein A
Form/Format	Liquid; 0.2um filtered solution in PBS
Applicable Applications for anti-CA14 antibody	IF (Immunofluorescence), ICC (Immunocytochemistry), IHC (Immunohistochemistry), ELISA
Antibody Type	Recombinant Antibody
Immunogen	Recombinant Human Carbonic Anhydrase XIV/CA14 Protein
Conjugation	Unconjugated
Preparation	This antibody was obtained from a rabbit immunized with purified, recombinant Human Carbonic Anhydrase XIV/CA14 (rh Carbonic Anhydrase XIV/CA14).
Preparation and Storage	This antibody can be stored at 2-8 degree C for one month without detectable loss of activity. Antibody products are stable for twelve months from date of receipt when stored at -20 degree C to -80 degree C. Preservative-Free. Avoid repeated freeze-thaw cycles.

IMAGES



IHC (Immunohistochemistry)

Immunochemical staining of human CA14 in human liver with rabbit monoclonal antibody (1:200, formalin-fixed paraffin embedded sections). Positive staining was localized to membrane of hepatocyte.



IF (Immunofluorescence)

Immunofluorescence staining of Human CA14 in MCF7 cells. Cells were fixed with 4% PFA, blocked with 10% serum, and incubated with rabbit anti-Human CA14 monoclonal antibody (1:60) at 37 degree C 1 hour. Then cells were stained with the Alexa Fluor 488-conjugated goat Anti-rabbit IgG secondary antibody (green) and counterstained with DAPI (blue). Positive staining was localized to cell membrane.

ADDITIONAL INFORMATION

Related Product Information for anti-CA14 antibody	The carbonic anhydrases (or carbonate dehydratases) are classified as metalloenzyme for its zinc ion prosthetic group and form a family of enzymes that catalyze the rapid interconversion of carbon dioxide and water to bicarbonate and protons, a reversible reaction that takes part in maintaining acid-base balance in blood and other tissues. The carbonic anhydraseI (CA) family consists of at least 11 enzymatically active members and a few inactive homologous proteins. CAXIV is a member of CA family that showed an overall similarity of 29-46% to other active CA isozymes. The highest percentage similarity was with a transmembrane CA isoform, CAXII. The CAXIV was found high concentrations in human heart, brain, liver, and skeletal muscle but lower in the colon, small intestine, urinary bladder, and kidney. No CAXIV mRNA was seen in the salivary gland and pancreas. CAXIV is a likely candidate for the extracellular CA postulated to have an important role in modulating excitatory synaptic transmission in brain.
References	Lehtonen J, et al. (2004) Characterization of CA XIII, a Novel Member of the Carbonic Anhydrase Isozyme Family. The Journal of Biological Chemistry. 279: 2719-27.Lindskog S. (1997) Structure and mechanism of carbonic anhydrase. Pharmacology & Therapeutics. 74(1):1-20.Parkkila S, et al. (2001) Expression of membrane-associated carbonic anhydrase XIV on neurons and axons in mouse and human brain. PNAS. 98(4): 1918-23.

NCBI AND UNIPROT INFORMATION

NCBI GI #	6912284
NCBI GeneID	23632
NCBI Accession #	NP_036245.1
NCBI GenBank Nucleotide #	NM_012113.1
UniProt Accession #	Q9ULX7; Q5TB24; Q8NCF4
Molecular Weight	37,668 Da
NCBI Official Full Name	carbonic anhydrase 14
NCBI Official Synonym Full Names	carbonic anhydrase XIV
NCBI Official Symbol	CA14
NCBI Official Synonym Symbols	CAXiV
NCBI Protein Information	carbonic anhydrase 14; CA-XIV; carbonic dehydratase; carbonate dehydratase XIV
UniProt Protein Name	Carbonic anhydrase 14
UniProt Gene Name	CA14
UniProt Synonym Gene Names	CA-XIV
UniProt Entry Name	CAH14_HUMAN

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.