

Recombinant Carbonic Anhydrase XIV/CA14 Monoclonal Antibody

catalog number: **AN300091P**

Note: Centrifuge before opening to ensure complete recovery of vial contents.

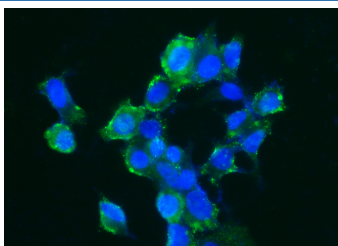
Description

Reactivity	Human
Immunogen	Recombinant Human Carbonic Anhydrase XIV / CA14 Protein
Host	Rabbit
Isotype	IgG
Clone	6H2
Purification	Protein A
Buffer	0.2 µm filtered solution in PBS

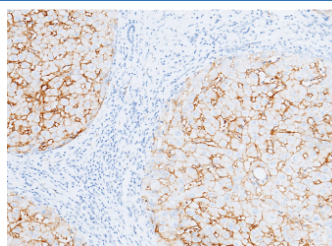
Applications

Applications	Recommended Dilution
IHC-P	1:100-1:500
ICC/IF	1:20-1:100

Data



Immunofluorescence analysis 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°C 1 hour. Then cells were stained with the Alexa Fluor® 488-conjugated goat Anti-rabbit IgG secondary antibody (green) and counterstained with DAPI for nuclear staining (blue). Positive staining was localized to cell membrane.



Immunohistochemistry of paraffin-embedded human liver using Carbonic Anhydrase XIV / CA14 Monoclonal Antibody at dilution of 1:200.

Preparation & Storage

Storage	This antibody can be stored at 2°C-8°C for one month without detectable loss of activity. Antibody products are stable for twelve months from date of receipt when stored at -20°C to -80°C. Preservative-Free. Avoid repeated freeze-thaw cycles.
Shipping	Ice bag

Background

For Research Use Only

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 anhydrase (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.