



# CA XII Polyclonal Antibody

<b>Catalog No</b>	YP-Ab-02517
<b>Isotype</b>	IgG
<b>Reactivity</b>	Human;Mouse;Rat
<b>Applications</b>	WB;IHC;IF;ELISA
<b>Gene Name</b>	CA12
<b>Protein Name</b>	Carbonic anhydrase 12
<b>Immunogen</b>	The antiserum was produced against synthesized peptide derived from human CA12. AA range:231-280
<b>Specificity</b>	CA XII Polyclonal Antibody detects endogenous levels of CA XII protein.
<b>Formulation</b>	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
<b>Source</b>	Polyclonal, Rabbit,IgG
<b>Purification</b>	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
<b>Dilution</b>	IHC-p: 100-300.WB: 1/500 - 1/2000. ELISA: 1/40000.. IF 1:50-200
<b>Concentration</b>	1 mg/ml
<b>Purity</b>	≥90%
<b>Storage Stability</b>	-20°C/1 year
<b>Synonyms</b>	CA12; Carbonic anhydrase 12; Carbonate dehydratase XII; Carbonic anhydrase XII; CA-XII; Tumor antigen HOM-RCC-3.1.3
<b>Observed Band</b>	45kD
<b>Cell Pathway</b>	Membrane; Single-pass type I membrane protein. Cell membrane .
<b>Tissue Specificity</b>	Highly expressed in colon, kidney, prostate, intestine and activated lymphocytes. Expressed at much higher levels in the renal cell cancers than in surrounding normal kidney tissue. Moderately expressed in pancreas, ovary and testis. Expressed in sweat glands and bronchiolar epithelium (PubMed:26911677).
<b>Function</b>	catalytic activity:H(2)CO(3) = CO(2) + H(2)O.,cofactor:Zinc.,enzyme regulation:Inhibited by acetazolamide.,function:Reversible hydration of carbon dioxide.,similarity:Belongs to the alpha-carbonic anhydrase family.,tissue specificity:Highly expressed in colon, kidney, prostate, intestine and activated lymphocytes. Expressed at much higher levels in the renal cell cancers than in surrounding normal kidney tissue. Moderately expressed in pancreas, ovary and testis.,
<b>Background</b>	Carbonic anhydrases (CAs) are a large family of zinc metalloenzymes that catalyze the reversible hydration of carbon dioxide. They participate in a variety of biological processes, including respiration, calcification, acid-base balance, bone resorption, and the formation of aqueous humor, cerebrospinal fluid, saliva, and

gastric acid. This gene product is a type I membrane protein that is highly expressed in normal tissues, such as kidney, colon and pancreas, and has been found to be overexpressed in 10% of clear cell renal carcinomas. Three transcript variants encoding different isoforms have been identified for this gene. [provided by RefSeq, Jun 2014],

**matters needing attention**

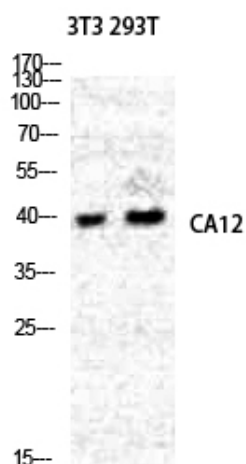
Avoid repeated freezing and thawing!

**Usage suggestions**

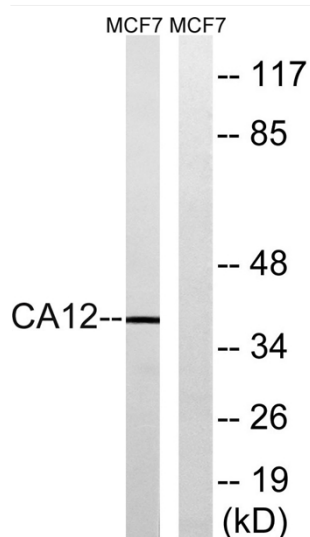
This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.



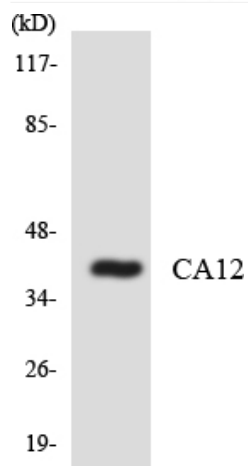
## Products Images



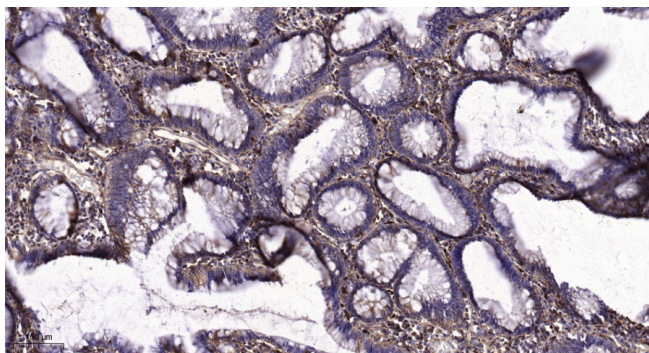
Western Blot analysis of NIH-3T3 293T cells using CA XII Polyclonal Antibody diluted at 1:2000



Western blot analysis of lysates from MCF-7 cells, using CA12 Antibody. The lane on the right is blocked with the synthesized peptide.



Western blot analysis of the lysates from COLO205 cells using CA12 antibody.



Immunohistochemical analysis of paraffin-embedded human colon cancer. 1, Tris-EDTA, pH 9.0 was used for antigen retrieval. 2 Antibody was diluted at 1:200 (4° overnight). 3, Secondary antibody was diluted at 1:200 (room temperature, 45 min).