

## Product datasheet for **UM500086CF**

### CA12 Mouse Monoclonal Antibody [Clone ID: UMAB121]

#### Product data:

Product Type:	Primary Antibodies
Clone Name:	UMAB121
Applications:	IF, IHC, WB
Recommended Dilution:	IHC 1:100~200
Reactivity:	Human
Host:	Mouse
Isotype:	IgG2a
Clonality:	Monoclonal
Immunogen:	Full length human recombinant protein of human CA12(NP_001209) produced in HEK293T cell.
Formulation:	Lyophilized powder (original buffer 1X PBS, pH 7.3, 8% trehalose)
Reconstitution Method:	For reconstitution, we recommend adding 100uL distilled water to a final antibody concentration of about 1 mg/mL. To use this carrier-free antibody for conjugation experiment, we strongly recommend performing another round of desalting process. (OriGene recommends Zeba Spin Desalting Columns, 7KMWCO from Thermo Scientific)
Purification:	Purified from mouse ascites fluids or tissue culture supernatant by affinity chromatography (protein A/G)
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Predicted Protein Size:	36.8 kDa
Gene Name:	carbonic anhydrase 12
Database Link:	<a href="#">NP_001209</a> <a href="#">Entrez Gene 771 Human</a> <a href="#">O43570</a>



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**Background:**

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. Two transcript variants encoding different isoforms have been identified for this gene. [provided by RefSeq, Jul 2008]

**Synonyms:**

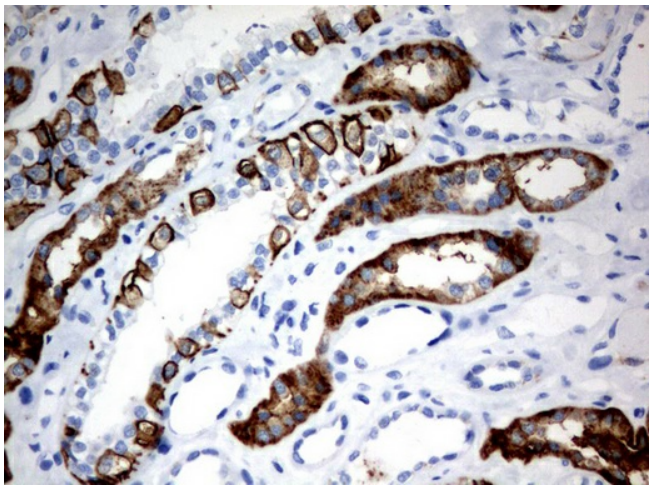
CAXII; HsT18816

**Protein Families:**

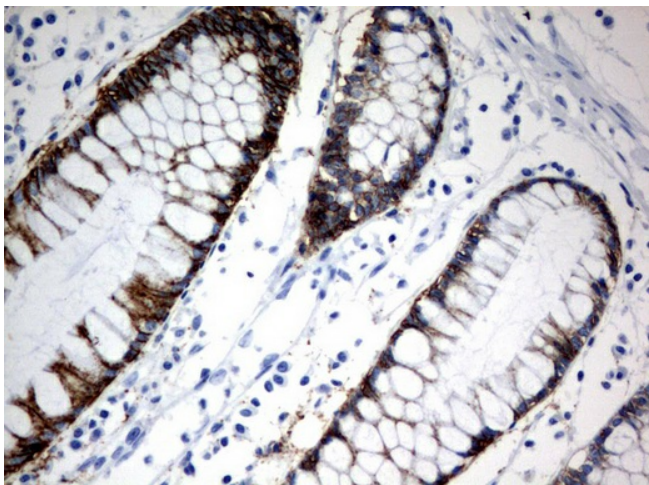
Druggable Genome, Transmembrane

**Protein Pathways:**

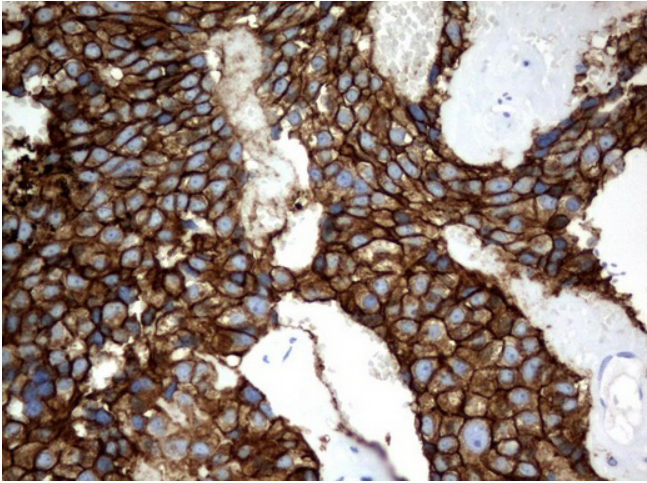
Nitrogen metabolism

**Product images:**

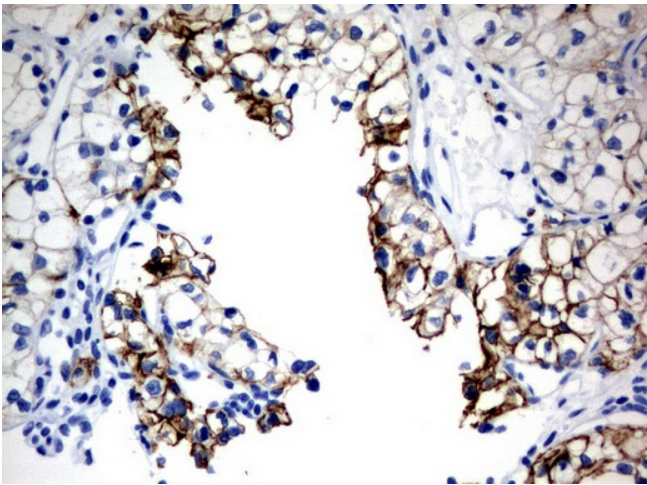
Immunohistochemical staining of paraffin-embedded Human Kidney tissue using anti-CA12 mouse monoclonal antibody. ([UM500086]; heat-induced epitope retrieval by 10mM citric buffer, pH6.0, 120°C for 3min)



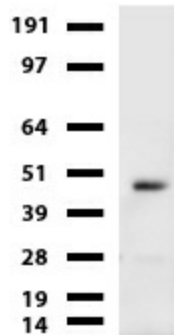
Immunohistochemical staining of paraffin-embedded Human colon tissue using anti-CA12 mouse monoclonal antibody. ([UM500086]; heat-induced epitope retrieval by 10mM citric buffer, pH6.0, 120°C for 3min)



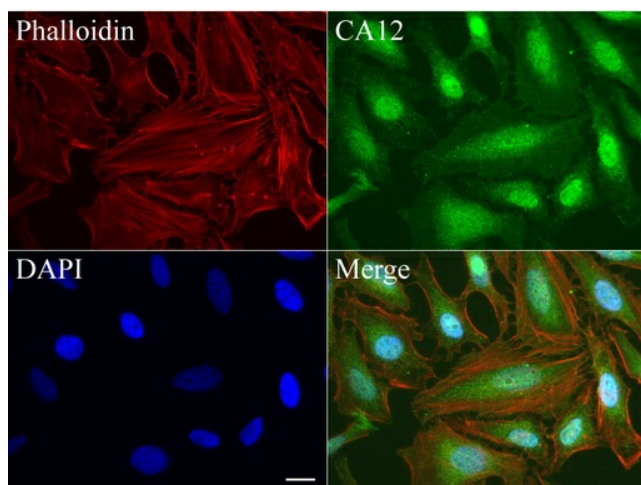
Immunohistochemical staining of paraffin-embedded Adenocarcinoma of Human breast tissue using anti-CA12 mouse monoclonal antibody. ([UM500086]; heat-induced epitope retrieval by 10mM citric buffer, pH6.0, 120°C for 3min)



Immunohistochemical staining of paraffin-embedded Carcinoma of Human kidney tissue using anti-CA12 mouse monoclonal antibody. ([UM500086]; heat-induced epitope retrieval by 10mM citric buffer, pH6.0, 120°C for 3min)



Western blot of cell lysates (35ug) from A549. Dilution: 1:500



Immunofluorescent staining of HeLa cells using anti-CA12 mouse monoclonal antibody ([UM500086], green, 1:50). Actin filaments were labeled with Alexa Fluor® 594 Phalloidin (red), and nuclear with DAPI (blue). Scale bar, 20 $\mu$ m.