

Product name:	CA IX(12F10)Mouse Monoclonal Antibody
Cat number:	MABN07769
Conjugate:	Unconjugated
Size:	100µL
Clone:	Monoclonal
Concentration:	1mg/ml
Host:	Mouse
Isotype:	IgG
Immunogen:	Synthetic Peptide of CA IX
Reactivity:	Human
Applications:	WB 1:1000-1:3000,IHC 1:50-1:300,ICC/IF 1:50-1:200
Molecular Weight:	38-48kDa
Purification:	Affinity purification
Form:	Liquid
Buffer:	PBS, pH 7.4, containing 0.5%BSA, 0.02% New type preservative N as Preservative and 50% Glycerol.
Storage:	Store at 4°C short term. Aliquot and store at -20°C for 12 months. Avoid freeze/thaw cycles.

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. They show extensive diversity in tissue distribution and in their subcellular localization. CA IX is a transmembrane protein and is one of only two tumor-associated carbonic anhydrase isoenzymes known. It is expressed in all clear-cell renal cell carcinoma, but is not detected in normal kidney or most other normal tissues. It may be involved in cell proliferation and transformation. This gene was mapped to 17q21.2 by fluorescence in situ hybridization, however, radiation hybrid mapping localized it to 9p13-p12. [provided by RefSeq, Jun 2014], catalytic activity: $\text{H}_2\text{CO}_3 = \text{CO}_2 + \text{H}_2\text{O}$, cofactor: Zinc., function: Reversible hydration of carbon dioxide. Participates in pH regulation. May be involved in the control of cell proliferation and transformation. Appears to be a novel specific biomarker for a cervical neoplasia., induction: By hypoxia., PTM: Asn-346 bears high-mannose type glycan structures., similarity: Belongs to the alpha-carbonic anhydrase family., subcellular location: Found on the surface microvilli and in the nucleus, particularly in nucleolus., subunit: Forms oligomers linked by disulfide bonds., tissue specificity: Expressed primarily in carcinoma cells lines. Expression is restricted to very few normal tissues and the most abundant expression is found in the epithelial cells of gastric mucosa.,