

DESCRIPTION

Species Reactivity	Human
Specificity	Detects Human Carbonic Anhydrase IX/CA9 in direct ELISA.
Source	Recombinant Monoclonal Rabbit IgG Clone # 1349A
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line, NS0-derived human Carbonic Anhydrase IX/CA9 Pro59-Asp414 Accession # Q16790
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

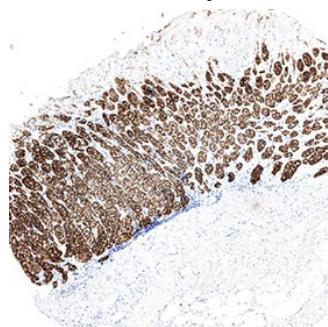
APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

	Recommended Concentration	Sample
Immunohistochemistry	1-3 µg/mL	Immersion fixed paraffin-embedded sections of human stomach

DATA

Immunohistochemistry



Detection of Carbonic Anhydrase IX/CA9 in Human Stomach. Carbonic Anhydrase IX/CA9 was detected in immersion fixed paraffin-embedded sections of human stomach using Rabbit Anti-Human Carbonic Anhydrase IX/CA9 Monoclonal Antibody (Catalog # MAB11526) at 3 µg/ml overnight at 4 °C. Before incubation with the primary antibody, tissue was subjected to heat-induced epitope retrieval using VisUCyte Antigen Retrieval Reagent-Basic (Catalog # [VCTS021](#)). Tissue was stained using the Anti-Rabbit HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # [CTS005](#)) or the HRP-conjugated Anti-Rabbit IgG Secondary Antibody (Catalog # [HAF008](#)) and counterstained with hematoxylin (blue). Specific staining was localized to the cytoplasm of glandular cells. View our protocol for [Chromogenic IHC Staining of Paraffin-embedded Tissue Sections](#).

PREPARATION AND STORAGE

Reconstitution	Reconstitute lyophilized material at 0.2mg/ml in sterile PBS. For liquid material, refer to CoA for concentration.
Shipping	Lyophilized product is shipped at ambient temperature. Liquid small pack size (-SP) is shipped with polar packs. Upon receipt, store immediately at the temperature recommended below.
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> 12 months from date of receipt, -20 to -70 °C as supplied. 1 month, 2 to 8 °C under sterile conditions after reconstitution. 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

Carbonic Anhydrase (CA) catalyzes the reversible reaction of $\text{CO}_2 + \text{H}_2\text{O} = \text{HCO}_3^- + \text{H}^+$, which is fundamental to many processes such as respiration, renal tubular acidification and bone resorption (1-3). CA9, also known as membrane antigen MN and renal cell carcinoma (RCC)-associated antigen G250, is a transmembrane enzyme expressed primarily in carcinoma cells. It is one of the best markers for hypoxia and for RCC (4, 5). The immunogen corresponds to the extracellular portion of human CA9.

References:

1. Pastorek, J. *et al.* (1994) *Oncogene* **9**: 2877.
2. Opavsky, R. *et al.* (1996) *Genomics* **33**: 480.
3. Hewett-Emmett, D. and R.E. Tashian (1996) *Mol. Phylogenet. Evol.* **5**:50.
4. Kaluzova, M. *et al.* (2004) *Mol. Cell Biol.* **24**:5757.
5. Mukoyama, H. *et al.* (2004) *Clin. Cancer Res.* **10**:1421.