abcam

Product datasheet

Anti-Carbonic Anhydrase 9/CA9 antibody ab128883

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Overview

Product name	Anti-Carbonic Anhydrase 9/CA9 antibody
Description	Rabbit polyclonal to Carbonic Anhydrase 9/CA9
Host species	Rabbit
Tested applications	**Suitable for:** IHC-P, WB
Species reactivity	**Reacts with:** Human **Predicted to work with:** Chimpanzee, Macaque monkey, Orangutan
Immunogen	Synthetic peptide corresponding to Human Carbonic Anhydrase 9/CA9 aa 400 to the C-terminus (C terminal) conjugated to keyhole limpet haemocyanin. (Peptide available as **ab156179**)
Positive control	This antibody gave a positive signal in both A549 and Ramos whole cell lysates within WB as well as in Human kidney carcinoma formalin fixed paraffin embedded tissue section within IHC.
General notes	The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing. If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.40 Preservative: 0.02% Sodium azide Constituent: PBS Batches of this product that have a concentration < 1mg/ml may have BSA added as a stabilising agent. If you would like information about the formulation of a specific lot, please contact our scientific support team who will be happy to help.

Purity	Immunogen affinity purified
Clonality	Polyclonal
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab128883 in the following tested applications.

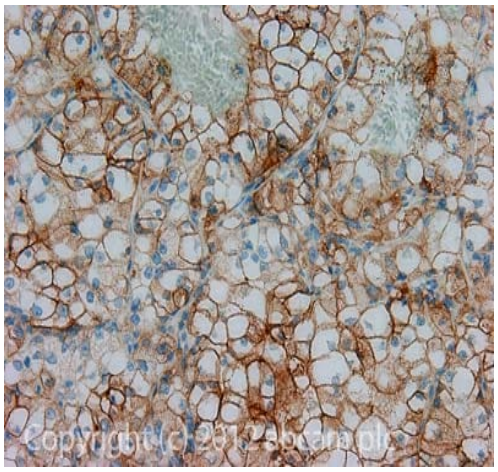
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
IHC-P		Use a concentration of 5 µg/ml. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.
WB	★☆☆☆☆ (1)	Use a concentration of 1 µg/ml. Detects a band of approximately 55 kDa (predicted molecular weight: 49 kDa).

Target

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.
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.
Sequence similarities	Belongs to the alpha-carbonic anhydrase family. Contains 1 alpha-carbonic anhydrase domain.
Post-translational modifications	Asn-346 bears high-mannose type glycan structures.
Cellular localization	Nucleus. Nucleus, nucleolus. Cell membrane. Cell projection, microvillus membrane. Found on the surface microvilli and in the nucleus, particularly in nucleolus.

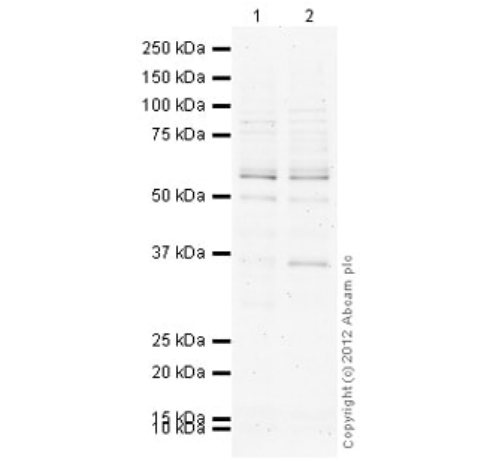
Images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Carbonic Anhydrase 9/CA9 antibody (ab128883)

IHC image of Carbonic Anhydrase 9/CA9 staining in Human kidney carcinoma formalin fixed paraffin embedded tissue section, performed on a Leica BondTM system using the standard protocol F. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH6, epitope retrieval solution 1) for 20 mins. The section was then incubated with **ab128882**, 5µg/ml, for 15 mins at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

For other IHC staining systems (automated and non-automated) customers should optimize variable parameters such as antigen retrieval conditions, primary antibody concentration and antibody incubation times.



Western blot - Anti-Carbonic Anhydrase 9/CA9 antibody (ab128883)

All lanes : Anti-Carbonic Anhydrase 9/CA9 antibody (ab128883) at 1 µg/ml

Lane 1 : Ramos (Human Burkitt's lymphoma cell line) Whole Cell Lysate
Lane 2 : A549 (Human lung adenocarcinoma epithelial cell line) Whole Cell Lysate

Lysates/proteins at 10 µg per lane.

Secondary
All lanes : Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/10000 dilution

Developed using the ECL technique.

Performed under reducing conditions.

Predicted band size: 49 kDa
Observed band size: 55 kDa
Additional bands at: 36 kDa, 50 kDa, 85 kDa. We are unsure as to the identity of these extra bands.

Exposure time: 12 minutes

Carbonic Anhydrase IX contains a number of potential glycosylation sites (SwissProt) which may explain its migration at a higher

molecular weight than predicted. This blot was produced using a 10% Bis-tris gel under the MOPS buffer system. The gel was run at 200V for 50 minutes before being transferred onto a Nitrocellulose membrane at 30V for 70 minutes. The membrane was then blocked for an hour using 5% Bovine Serum Albumin before being incubated with ab128883 overnight at 4°C. Antibody binding was detected using an anti-rabbit antibody conjugated to HRP, and visualised using ECL development solution.

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