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antibody and ELISA experts

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Anti-Carbonic Anhydrase 13/CA13 Antibody Picoband™

Catalog Number: A09186-3

About CA13

Carbonic anhydrase 13 is a protein that in humans is encoded by the CA13 gene. Carbonic anhydrases (CAs) are a family of zinc metalloenzymes that catalyze the interconversion between carbon dioxide and water and the dissociated ions of carbonic acid (i.e. bicarbonate and hydrogen ions).

Overview

Product Name	Anti-Carbonic Anhydrase 13/CA13 Antibody Picoband™
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-Carbonic Anhydrase 13/CA13 Antibody Picoband™ catalog # A09186-3. Tested in Flow Cytometry, IF, IHC, ICC, WB applications. This antibody reacts with Human, Mouse, Rat.
Application	Flow Cytometry, IF, IHC, ICC, WB
Clonality	Polyclonal
Formulation	Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na2HPO4, 0.01mg NaN3.
Storage Instructions	Store at -20˚C for one year from date of receipt. After reconstitution, at 4˚C for one month. It can also be aliquotted and stored frozen at -20˚C for six months. Avoid repeated freeze-thaw cycles.
Host	Rabbit
Uniprot ID	Q8N1Q1

Technical Details

Immunogen	A synthetic peptide corresponding to a sequence at the N-terminus of human Carbonic Anhydrase 13/CA13, which shares 85% and 55% amino acid (aa) sequence identity with mouse and rat Carbonic Anhydrase 13/CA13, respectively.
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(P) and ICC.
Cross Reactivity	No cross-reactivity with other proteins.
Isotype	Rabbit IgG
Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	Dilute the sample so that the expected range of concentrations fall within the detection range of this

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	kit. If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples. Some PubMed article(s) citing the expression level of this target are as follows: Boster Bio's internal QC testing used: Western blot, 0.25-0.5ug/ml, Human, Mouse, Rat Immunohistochemistry (Paraffin-embedded Section), 2-5ug/ml, Human Immunocytochemistry/Immunofluorescence, 5ug/ml, Human Flow Cytometry, 1-3ug/1x10^6 cells, Human

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Anti-Carbonic Anhydrase 13/CA13 Antibody Picoband™ (A09186-3) Images

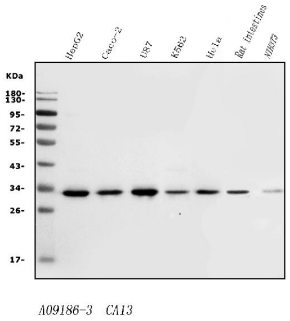

Figure 1. Western blot analysis of Carbonic Anhydrase 13/CA13 using anti-Carbonic Anhydrase 13/CA13 antibody (A09186-3).
Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions.
Lane 1: human HepG2 whole cell lysates,
Lane 2: human CACO-2 whole cell lysates,
Lane 3: human U87 whole cell lysates,
Lane 4: human K562 whole cell lysates,
Lane 5: human Hela whole cell lysates,
Lane 6: rat intestines tissue lysates,
Lane 7: mouse NTH/3T3 whole cell lysates.
After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-Carbonic Anhydrase 13/CA13 antigen affinity purified polyclonal antibody (Catalog # A09186-3) at 0.5 ug/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for Carbonic Anhydrase 13/CA13 at approximately 29KD. The expected band size for Carbonic Anhydrase 13/CA13 is at 29KD.

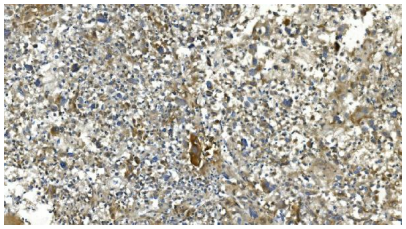

Figure 2. IHC analysis of Carbonic Anhydrase 13/CA13 using anti-Carbonic Anhydrase 13/CA13 antibody (A09186-3). Carbonic Anhydrase 13/CA13 was detected in paraffin-embedded section of human liver cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2ug/ml rabbit anti-Carbonic Anhydrase 13/CA13 Antibody (A09186-3) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB as the chromogen.

Figure 3. IHC analysis of Carbonic Anhydrase 13/CA13 using anti-Carbonic Anhydrase 13/CA13 antibody (A09186-3). Carbonic Anhydrase 13/CA13 was detected in paraffin-embedded section of human melanoma tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2ug/ml rabbit anti-Carbonic Anhydrase 13/CA13 Antibody (A09186-3) overnight at 4°C. Biotinylated

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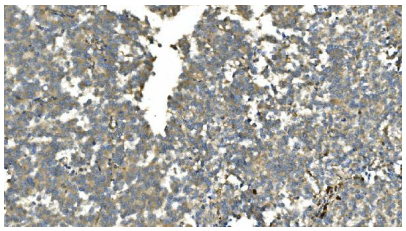

goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB as the chromogen.

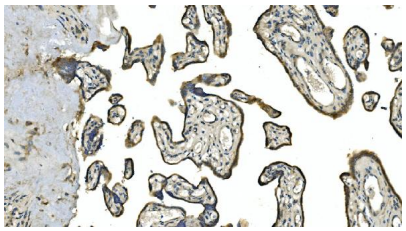

Figure 4. IHC analysis of Carbonic Anhydrase 13/CA13 using anti-Carbonic Anhydrase 13/CA13 antibody (A09186-3). Carbonic Anhydrase 13/CA13 was detected in paraffin-embedded section of human placenta tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2ug/ml rabbit anti-Carbonic Anhydrase 13/CA13 Antibody (A09186-3) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB as the chromogen.

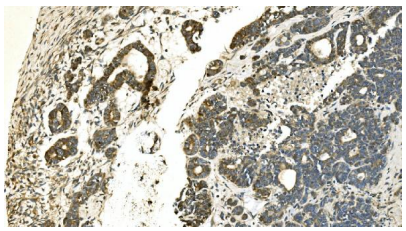

Figure 5. IHC analysis of Carbonic Anhydrase 13/CA13 using anti-Carbonic Anhydrase 13/CA13 antibody (A09186-3). Carbonic Anhydrase 13/CA13 was detected in paraffin-embedded section of human ovarian cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2ug/ml rabbit anti-Carbonic Anhydrase 13/CA13 Antibody (A09186-3) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB as the chromogen.

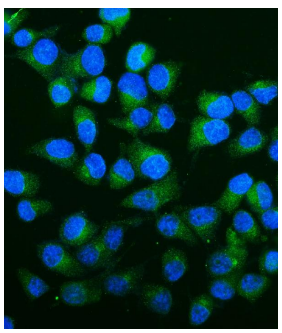

Figure 6. IF analysis of Carbonic Anhydrase 13/CA13 using anti-Carbonic Anhydrase 13/CA13 antibody (A09186-3). Carbonic Anhydrase 13/CA13 was detected in immunocytochemical section of Hep cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (AR0022) for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 5ug/mL rabbit anti-Carbonic Anhydrase 13/CA13 Antibody (A09186-3) overnight at 4°C. DyLight®488 Conjugated Goat Anti-Rabbit IgG (BA1127) was used as secondary antibody at 1:100 dilution and incubated for 30 minutes at 37°C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.

Figure 7. Flow Cytometry analysis of CACO-2 cells using anti-Carbonic Anhydrase 13/CA13 antibody (A09186-3). Overlay histogram showing CACO-2 cells stained with A09186-3 (Blue line).The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-

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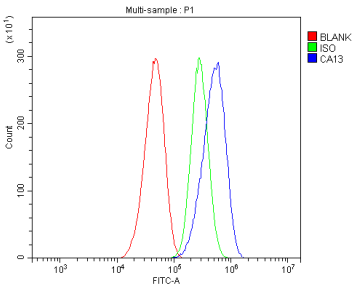

Carbonic Anhydrase 13/CA13 Antibody (A09186-3, 1ug/1x10^6 cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10ug/1x10^6 cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1ug/1x10^6) used under the same conditions. Unlabelled sample (Red line) was also used as a control.

Anti-Carbonic Anhydrase 13/CA13 Antibody