

## Product Datasheet

### Anti-Carbonic Anhydrase I/CA1 Antibody (monoclonal, 2B5) (orb692239)

<b>Description</b>	Anti-Carbonic Anhydrase I/CA1 Antibody (monoclonal, 2B5). Tested in IHC, WB applications. This antibody reacts with Human, Mouse, Rat.
<b>Species/Host</b>	Mouse
<b>Reactivity</b>	Human, Mouse, Rat
<b>Conjugation</b>	Unconjugated
<b>Tested Applications</b>	IHC, WB
<b>Immunogen</b>	E.coli-derived human CA1 recombinant protein (Position: D9-F261). Human CA1 shares 78.5% and 81% amino acid (aa) sequence identity with mouse and rat CA1, respectively.
<b>Form/Appearance</b>	Lyophilized
<b>Concentration</b>	Adding 0.2 ml of distilled water will yield a concentration of 500 µg/ml.
<b>Storage</b>	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
<b>Note</b>	For research use only
<b>Application notes</b>	Western blot, 0.25-0.5µg/ml, Human, Mouse, Rat Immunohistochemistry (Paraffin-embedded Section), 2-5µg/ml, Human. Add 0.2ml of distilled water will yield a concentration of 500ug/ml
<b>Isotype</b>	Mouse IgG1
<b>Clonality</b>	Monoclonal
<b>Clone Number</b>	2B5
<b>Antibody Type</b>	Primary Antibody

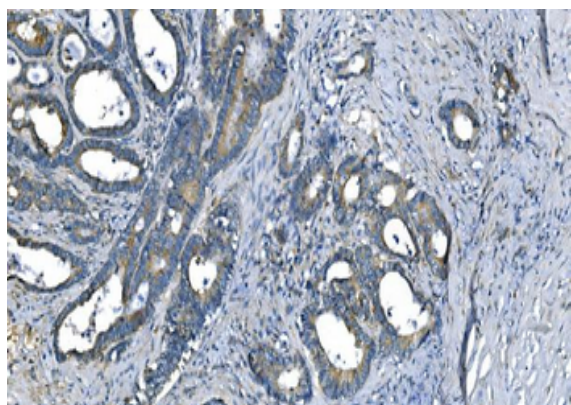
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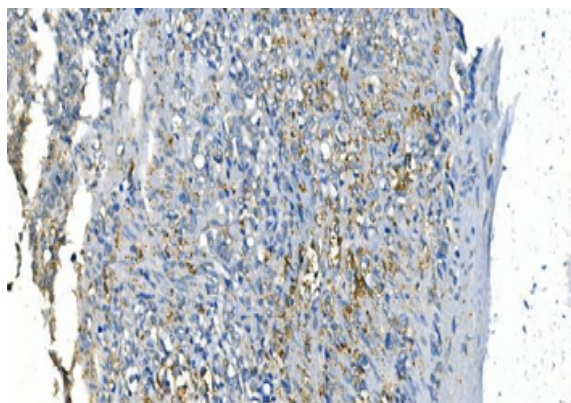
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<b>MW</b>	29 kDa
<b>Uniprot ID</b>	<b>P00915</b>
<b>Expiration Date</b>	12 months from date of receipt.



IHC analysis of Carbonic Anhydrase I/CA1 using anti-Carbonic Anhydrase I/CA1 antibody. Carbonic Anhydrase I/CA1 was detected in paraffin-embedded section of human colon 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 2 µg/ml mouse anti-Carbonic Anhydrase I/CA1 Antibody overnight at 4°C. Biotinylated goat anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) with DAB as the chromogen.



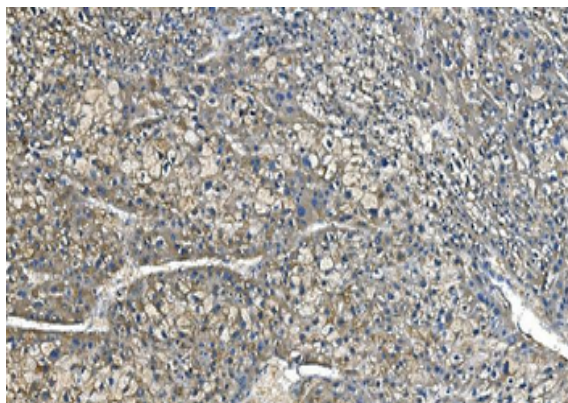
IHC analysis of Carbonic Anhydrase I/CA1 using anti-Carbonic Anhydrase I/CA1 antibody. Carbonic Anhydrase I/CA1 was detected in paraffin-embedded section of human gastric cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 µg/ml mouse anti-Carbonic Anhydrase I/CA1 Antibody overnight at 4°C. Biotinylated goat anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) with DAB as the chromogen.

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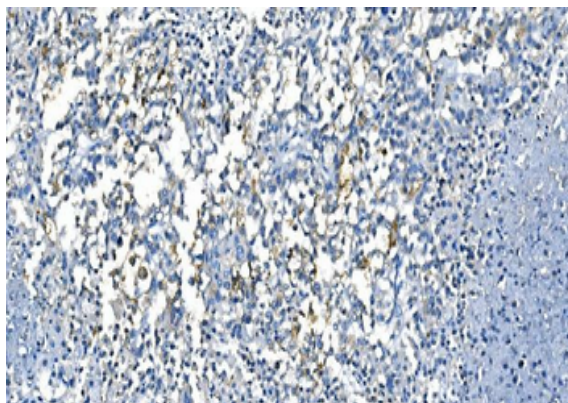
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IHC analysis of Carbonic Anhydrase I/CA1 using anti-Carbonic Anhydrase I/CA1 antibody. Carbonic Anhydrase I/CA1 was detected in paraffin-embedded section of human liver cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 µg/ml mouse anti-Carbonic Anhydrase I/CA1 Antibody overnight at 4°C. Biotinylated goat anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) with DAB as the chromogen.



IHC analysis of Carbonic Anhydrase I/CA1 using anti-Carbonic Anhydrase I/CA1 antibody. Carbonic Anhydrase I/CA1 was detected in paraffin-embedded section of human lung 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 2 µg/ml mouse anti-Carbonic Anhydrase I/CA1 Antibody overnight at 4°C. Biotinylated goat anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) with DAB as the chromogen.



IHC analysis of Carbonic Anhydrase I/CA1 using anti-Carbonic Anhydrase I/CA1 antibody. Carbonic Anhydrase I/CA1 was detected in paraffin-embedded section of human pancreatic 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 2 µg/ml mouse anti-Carbonic Anhydrase I/CA1 Antibody overnight at 4°C. Biotinylated goat anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) with DAB as the chromogen.

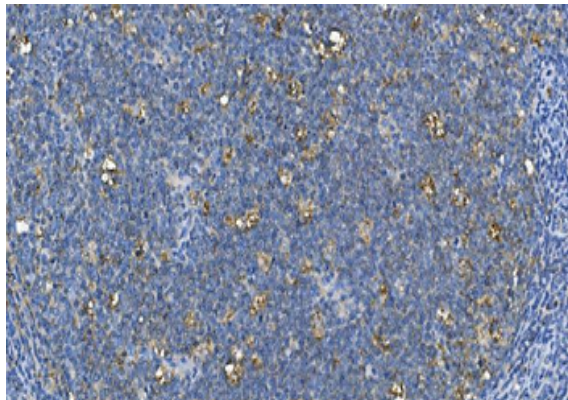
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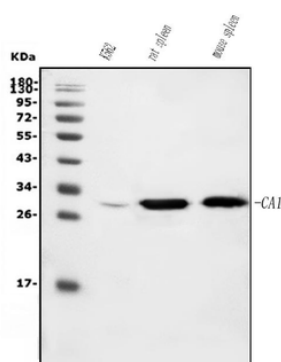
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IHC analysis of Carbonic Anhydrase I/CA1 using anti-Carbonic Anhydrase I/CA1 antibody. Carbonic Anhydrase I/CA1 was detected in paraffin-embedded section of human tonsil tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 µg/ml mouse anti-Carbonic Anhydrase I/CA1 Antibody overnight at 4°C. Biotinylated goat anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) with DAB as the chromogen.



Western blot analysis of Carbonic Anhydrase I/CA1 using anti-Carbonic Anhydrase I/CA1 antibody. 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 50 µg of sample under reducing conditions. Lane 1: human K562 whole cell lysates, Lane 2: rat spleen tissue lysates, Lane 3: mouse spleen tissue lysates. After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5 hour at RT. The membrane was incubated with mouse anti-Carbonic Anhydrase I/CA1 antigen affinity purified monoclonal antibody at 0.5 µg/mL overnight at 4°C, then washed with TBS-0.1% Tween 3 times with 5 minutes each and probed with a goat anti-mouse IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit with Tanon 5200 system. A specific band was detected for Carbonic Anhydrase I/CA1 at approximately 29 KD. The expected band size for Carbonic Anhydrase I/CA1 is at 29 KD.

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