abcam

ab236138

Anti-Carbonic Anhydrase 12/CA12 antibody [EPR14861] - BSA and Azide free

Recombinant | RabMAb | KO Validated

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Carrier free	Yes
Clone number	EPR14861
Purification technique	Affinity purification Protein A
Concentration	1.016 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

WB

Tested

Species	Human
Dilution info	-

Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	-
Notes	ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.

IHC-P

Tested

Species	Human
Dilution info	-
Notes	-

Target data

See full target information CA12

Function	Reversible hydration of carbon dioxide.

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	+4°C
Storage information	Do Not Freeze

Notes

ab236138 is the carrier-free version of ab195233.

Patented technology
Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.

What are the advantages of a recombinant monoclonal antibody?
This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility
- Improved sensitivity and specificity
- Long-term security of supply
- Animal-free batch production

For more information, read more on recombinant antibodies.

Conjugation ready
Our carrier-free antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications.

Use our conjugation kits for antibody conjugates that are ready-to-use in as little as 20 minutes with 1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold.

Compatibility
This product is compatible with the Maxpar® Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar® is a trademark of Fluidigm Canada Inc.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

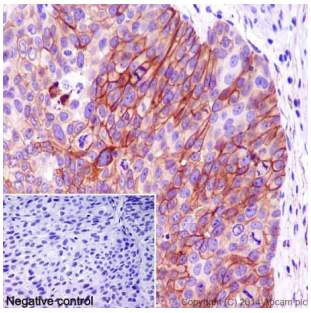
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

9 product images



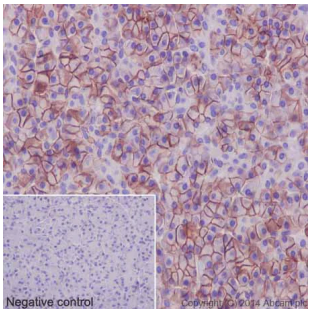
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Carbonic Anhydrase 12/CA12 antibody [EPR14861] - BSA and Azide free (ab236138)

Carbonic Anhydrase 12/CA12 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Carbonic Anhydrase 12/CA12 antibody

Immunohistochemical analysis of paraffin-embedded Human bladder transitional cell carcinoma tissue labeling CA12 with ab195233 at 1/100 dilution followed by Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500 dilution and counter-stained with Hematoxylin. (inset: negative control).
Note: Cell membrane and weakly cytoplasm staining on human transitional cell carcinoma of bladder tissue was observed.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab195233).

Heat mediated antigen retrieval was performed with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



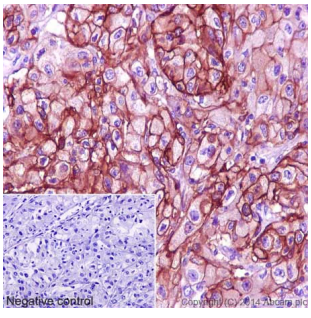
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Carbonic Anhydrase 12/CA12 antibody [EPR14861] - BSA and Azide free (ab236138)

Carbonic Anhydrase 12/CA12 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Carbonic Anhydrase 12/CA12 antibody

Immunohistochemical analysis of paraffin-embedded Human pancreas tissue labeling CA12 with ab195233 at 1/100 dilution followed by Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500 dilution and counter-stained with Hematoxylin. (inset: negative control).
Note: Cell membrane and weakly cytoplasm staining on human pancreas tissue was observed.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab195233).

Heat mediated antigen retrieval was performed with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Carbonic Anhydrase 12/CA12 antibody [EPR14861] - BSA and Azide free (ab236138)

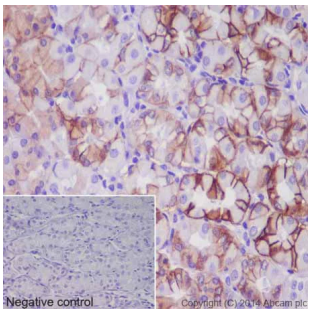
Carbonic Anhydrase 12/CA12 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Carbonic Anhydrase 12/CA12 antibody

Immunohistochemical analysis of paraffin-embedded Human renal adenocarcinoma tissue labeling CA12 with ab195233 at 1/100 dilution followed by Goat Anti-Rabbit IgG H&L (HRP)

(ab97051) at 1/500 dilution and counter-stained with Hematoxylin. (inset: negative control).
Note: Cell membrane and cytoplasm staining on human renal adenocarcinoma tissue was observed.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab195233).

Heat mediated antigen retrieval was performed with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



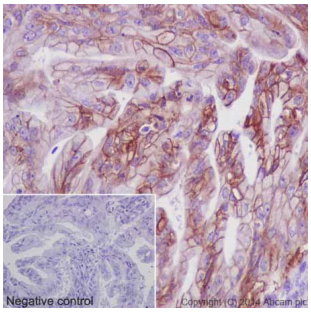
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Carbonic Anhydrase 12/CA12 antibody [EPR14861] - BSA and Azide free (ab236138)

Carbonic Anhydrase 12/CA12 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Carbonic Anhydrase 12/CA12 antibody

Immunohistochemical analysis of paraffin-embedded Human stomach tissue labeling CA12 with ab195233 at 1/100 dilution followed by Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500 dilution and counter-stained with Hematoxylin. (inset: negative control).
Note: Cell membrane and cytoplasm staining on human stomach tissue was observed.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab195233).

Heat mediated antigen retrieval was performed with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



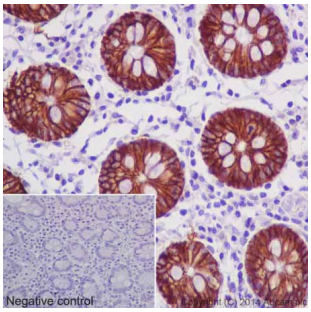
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Carbonic Anhydrase 12/CA12 antibody [EPR14861] - BSA and Azide free (ab236138)

Carbonic Anhydrase 12/CA12 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Carbonic Anhydrase 12/CA12 antibody

Immunohistochemical analysis of paraffin-embedded Human ovarian carcinoma tissue labeling CA12 with ab195233 at 1/100 dilution followed by Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500 dilution and counter-stained with Hematoxylin. (inset: negative control).
Note: Cell membrane and weakly cytoplasm staining on human ovarian carcinoma tissue was observed.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab195233).

Heat mediated antigen retrieval was performed with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



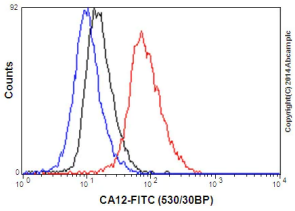
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Carbonic Anhydrase 12/CA12 antibody [EPR14861] - BSA and Azide free (ab236138)

Carbonic Anhydrase 12/CA12 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Carbonic Anhydrase 12/CA12 antibody

Immunohistochemical analysis of paraffin-embedded human colon tissue labeling CA12 with ab195233 at 1/100 dilution followed by Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500 dilution and counter-stained with Hematoxylin. (inset: negative control).
Note: Cell membrane and cytoplasm staining on human colon tissue was observed.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab195233).

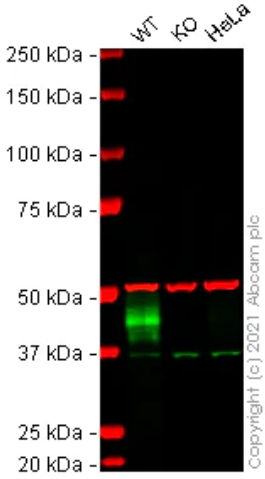
Heat mediated antigen retrieval was performed with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Flow Cytometry (Intracellular) - Anti-Carbonic Anhydrase 12/CA12 antibody [EPR14861] - BSA and Azide free (ab236138)

Carbonic Anhydrase 12/CA12 Flow Cytometry (Intracellular) staining using rabbit Anti-Carbonic Anhydrase 12/CA12 antibody

Intracellular flow cytometric analysis of SK-OV-3 cells (paraformaldehyde-fixed, 2%) labeling CA12 with ab195233 at 1/130 dilution (red) or a Rabbit monoclonal IgG (negative) (black), followed by Goat anti rabbit IgG (FITC) secondary at 1/150 dilution. Unlabeled cells (Blue).
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab195233).



Western blot - Anti-Carbonic Anhydrase 12/CA12 antibody [EPR14861] - BSA and Azide free (ab236138)

Carbonic Anhydrase 12/CA12 Western blot staining using rabbit Anti-Carbonic Anhydrase 12/CA12 antibody

This data was developed using the same antibody clone in a different buffer formulation (ab195233).
Lanes 1 - 3: Merged signal (red and green). Green - ab195233 observed at 40 kDa. Red - loading control ab7291 (Mouse anti-Alpha Tubulin [DM1A]) observed at 55 kDa.

ab195233 was shown to react with Carbonic Anhydrase 12/CA12 in wild-type A549 cells in Western blot with loss of signal observed in Ca12 knockout knockout cell line ab273738 (knockout cell lysate ab273778). Wild-type A549 and Ca12 knockout cell lysates were subjected to SDS-PAGE. Membranes were blocked in 3 % milk in TBS-T (0.1 % Tween®) before incubation with ab195233 and ab7291 (Mouse anti-Alpha Tubulin [DM1A]) overnight at 4 °C at a 1 in 10000 dilution and a 1 in 20000 dilution respectively. Blots were incubated with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preabsorbed (ab216773) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preabsorbed (ab216776) secondary antibodies at 1 in 20000 dilution for 1 h at room temperature before imaging.

All lanes:
Western blot - Anti-Carbonic Anhydrase 12/CA12 antibody [EPR14861] - C-terminal (ab195233) at 1/10000 dilution

Lane 1:

Wild-type A549 (Human lung carcinoma cell line) whole cell lysate at 20 µg

Lane 2:
Ca12 knockout A549 (Human lung carcinoma cell line) whole cell lysate at 20 µg

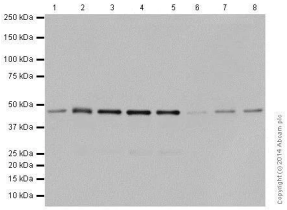
Lane 2:
Western blot - Human CA12 knockout A549 cell line (ab273738)

Lane 3:
HeLa (Human epithelial cell line from cervix adenocarcinoma) whole cell lysate at 20 µg

Performed under reducing conditions.

Predicted band size: 39 kDa

Observed band size: 40 kDa



Western blot - Anti-Carbonic Anhydrase 12/CA12 antibody [EPR14861] - BSA and Azide free (ab236138)

Carbonic Anhydrase 12/CA12 Western blot staining using rabbit Anti-Carbonic Anhydrase 12/CA12 antibody

This data was developed using the same antibody clone in a different buffer formulation (ab195233)
All lanes:
Western blot - Anti-Carbonic Anhydrase 12/CA12 antibody [EPR14861] - BSA and Azide free (ab236138) at 1/10000 dilution

Lane 1:
MCF7 cell lysate at 10 µg

Lanes 2 and 5:
SKOV3 cell lysate at 10 µg

Lane 3:
293 cell lysate at 10 µg

Lane 4:
HeLa cell lysate at 10 µg

Lane 6:
Human fetal kidney lysate at 10 µg

Lane 7:
Human ovary cancer lysate at 10 µg

Lane 8:
Human breast cancer lysate at 10 µg

Secondary

All lanes:
Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugate at 1/1000 dilution

Developed using the ECL technique.

Predicted band size: 39 kDa

Exposure time: 10s

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.