abcam

ab189219

Anti-Bcl10 antibody [EP606Y] - 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	EP606Y
Purification technique	Affinity purification Protein A
Concentration	1.026 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

ICC/IF

Tested

Species	Human
Dilution info	-
Notes	-

Not recommended

Species	Mouse, Rat
Dilution info	-
Notes	-

IP

Tested

Species	Human
Dilution info	-
Notes	-

Not recommended

Species	Mouse, Rat
Dilution info	-
Notes	-

WB

Tested

Species	Human
Dilution info	-
Notes	-

Not recommended

Species	Rat, Mouse
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	-
Notes	ab199376 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.

Not recommended

Species	Mouse, Rat
Dilution info	-
Notes	-

IHC-P

Tested

Species	Human
Dilution info	-
Notes	-

Not recommended

Species	Mouse, Rat
Dilution info	-
Notes	-

Target data

See full target information BCL10

Function	Plays a key role in both adaptive and innate immune signaling by bridging CARD domain-containing proteins to immune activation (PubMed:10187770, PubMed:10364242, PubMed:10400625, PubMed:24074955, PubMed:25365219). Acts by channeling adaptive and innate immune signaling downstream of CARD domain-containing proteins CARD9, CARD11 and CARD14 to activate NF-kappa-B and MAP kinase p38 (MAPK11, MAPK12, MAPK13 and/or MAPK14) pathways which stimulate expression of genes encoding pro-inflammatory cytokines and chemokines (PubMed:24074955). Recruited by activated CARD domain-containing proteins: homooligomerized CARD domain-containing proteins form a nucleating helical template that recruits BCL10 via CARD-CARD interaction, thereby promoting polymerization of BCL10, subsequent recruitment of MALT1 and formation of a

CBM complex (PubMed:24074955). This leads to activation of NF-kappa-B and MAP kinase p38 (MAPK11, MAPK12, MAPK13 and/or MAPK14) pathways which stimulate expression of genes encoding pro-inflammatory cytokines and chemokines (PubMed:18287044, PubMed:24074955, PubMed:27777308). Activated by CARD9 downstream of C-type lectin receptors; CARD9-mediated signals are essential for antifungal immunity (PubMed:26488816). Activated by CARD11 downstream of T-cell receptor (TCR) and B-cell receptor (BCR) (PubMed:18264101, PubMed:18287044, PubMed:24074955, PubMed:27777308). Promotes apoptosis, pro-caspase-9 maturation and activation of NF-kappa-B via NIK and IKK (PubMed:10187815).

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

ab189219 is the carrier-free version of ab33905.

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.

Species reactivity

Rat: We have preliminary internal testing data to indicate this antibody may not react with this species.
Please contact us for more information.

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.

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	Bcl10 also known as B-cell lymphoma 10 is a protein involved in several cellular processes. It has a molecular mass of approximately 26 kDa and shows expression in various lymphoid tissues. Bcl10 plays a significant role in signaling pathways by transmitting signals from the cell surface to the nucleus impacting cell growth and immune responses. Researchers often study Bcl10 using immunohistochemistry (IHC) techniques referred to as Bcl10 IHC to analyze its expression and distribution within tissues.
Biological function summary	Bcl10 activates downstream signaling pathways that are critical for immune cell functioning and survival. It forms part of the CARD-BCL10-MALT1 (CBM) complex which is important for the activation of the NF-kB pathway. This complex formation is essential for lymphocyte activation and proliferation. Bcl10 interactions within this complex influence cellular responses to various stimuli helping organisms to mount appropriate immune responses.
Pathways	Bcl10 serves as an integral component in the NF-kB and TCR signaling pathways. It functions alongside proteins such as MALT1 and CARD9 in these pathways. The proper functioning of Bcl10 in these pathways ensures accurate transcriptional regulation necessary for immune responses. Misregulation in these pathways can lead to immune disorders and aberrant cell behavior linking Bcl10 to further biological implications.
Associated diseases and disorders	Bcl10 shows associations with mucosa-associated lymphoid tissue (MALT) lymphoma and other inflammatory diseases. Aberrant Bcl10 expression or mutations can lead to unchecked activation of NF-kB contributing to the progression of these conditions. In MALT lymphoma Bcl10 often cooperates with MALT1 both contributing to pathological cell survival and proliferation highlighting the importance of Bcl10 in understanding these diseases.

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.

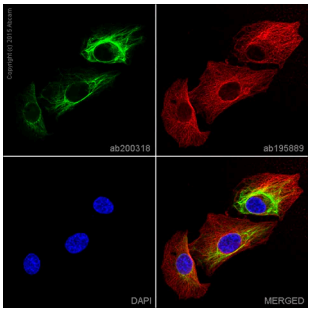
We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

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.

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8 product images

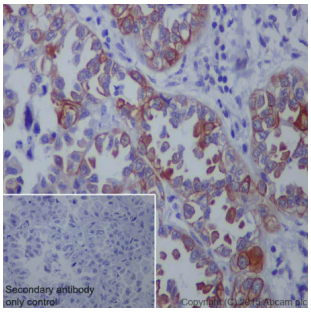


Immunocytochemistry/ Immunofluorescence - Anti-Bcl10 antibody [EP606Y] - BSA and Azide free (ab189219)

Bcl10 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-Bcl10 antibody

Clone EP606Y (ab189219) has been successfully conjugated by Abcam. This image was generated using Anti-Bcl10 antibody [EP606Y] (Alexa Fluor® 488). Please refer to ab200318 for protocol details.
ab200318 staining Bcl-10 in HeLa cells. The cells were fixed with 100% methanol (5min), permeabilized with 0.1% Triton X-100 for 5 minutes and then blocked with 1% BSA/10% normal goat serum/0.3M glycine in 0.1% PBS-Tween for 1h. The cells were then incubated overnight at +4°C with ab200318 at 1/200 dilution (shown in green) and ab195889, Mouse monoclonal to alpha Tubulin (Alexa Fluor® 594), at 2µg/ml (shown in red). Nuclear DNA was labelled with DAPI (shown in blue).

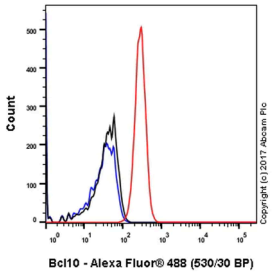
Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Bcl10 antibody [EP606Y] - BSA and Azide free (ab189219)

Bcl10 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Bcl10 antibody

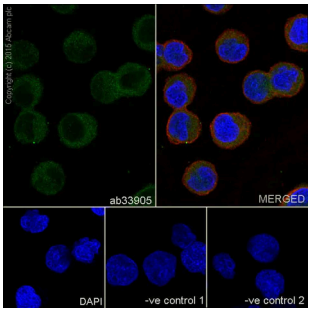
Immunohistochemical staining of paraffin embedded human lung carcinoma tissue with purified ab33905 at a working dilution of 1/50. The secondary antibody used is ab97051, a goat anti-rabbit IgG (H&L) at a dilution of 1/500. The sample is counter-stained with hematoxylin. Antigen retrieval was perfomed using Tris-EDTA buffer, pH 9.0. PBS was used instead of the primary antibody as the negative control, and is shown in the inset.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab33905).



Flow Cytometry (Intracellular) - Anti-Bcl10 antibody [EP606Y] - BSA and Azide free (ab189219)

Bcl10 Flow Cytometry (Intracellular) staining using rabbit Anti-Bcl10 antibody

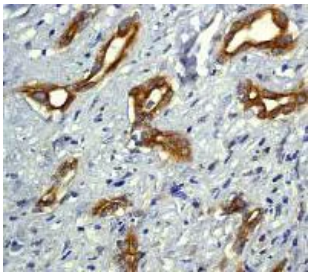
Intracellular Flow Cytometry analysis of Raji (human Burkitt's lymphoma) cells labeling Bcl10 (red) with ab33905 at a 1/200 dilution. Cells were fixed with 4% paraformaldehyde and permeabilized with 90% methanol. A goat anti-rabbit IgG (Alexa Fluorr® 488) (ab150077) was used as the secondary antibody at a 1/2000 dilution. Black - Rabbit monoclonal IgG (ab172730). Blue (unlabeled control) - Cells without incubation with primary and secondary antibodies.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab33905).



Immunocytochemistry/ Immunofluorescence - Anti-Bcl10 antibody [EP606Y] - BSA and Azide free (ab189219)

Bcl10 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-Bcl10 antibody

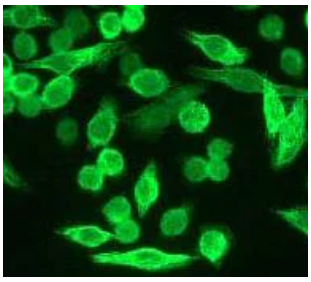
Immunofluorescence staining of Raji cells with purified ab33905 at a working dilution of 1/100, counter-stained with DAPI. The secondary antibody was Alexa Fluor® 488 goat anti-rabbit (ab150077), used at a dilution of 1/1000. ab7291, a mouse anti-tubulin antibody (1/1000), was used to stain tubulin along with ab150120 (Alexa Fluor® 594 goat anti-mouse, 1/1000), shown in the top right hand panel. The cells were fixed in 4 % PFA and permeabilized using 0.1% Triton X 100. The negative controls are shown in bottom middle and right hand panels - for negative control 1, purified ab33905 was used at a dilution of 1/500 followed by an Alexa Fluor® 594 goat anti-mouse antibody (ab150120) at a dilution of 1/500. For negative control 2, ab7291 (mouse anti-tubulin) was used at a dilution of 1/500 followed by an Alexa Fluor® 488 goat anti-rabbit antibody (ab150077) at a dilution of 1/400.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab33905).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Bcl10 antibody [EP606Y] - BSA and Azide free (ab189219)

Bcl10 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Bcl10 antibody

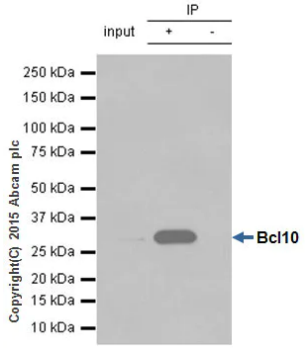
Unpurified ab33905, at a 1/100 dilution, staining human hepatocellular carcinoma by Immunohistochemistry, Paraffin embedded tissue.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab33905).



Immunocytochemistry/ Immunofluorescence - Anti-Bcl10 antibody [EP606Y] - BSA and Azide free (ab189219)

Bcl10 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-Bcl10 antibody

Unpurified ab33905, staining HeLa cells by Immunofluorescent.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab33905).

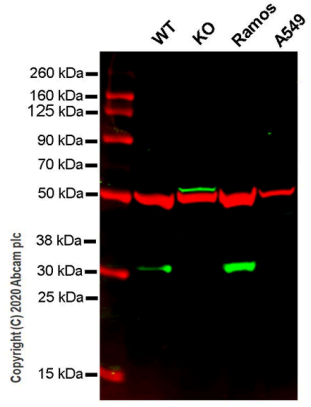


Immunoprecipitation - Anti-Bcl10 antibody [EP606Y] - BSA and Azide free (ab189219)

ab33905 (purified) at 1/20 immunoprecipitating Bcl10 in 10 µg Ramos cell lysate (Lanes 1 and 2, observed at 32 kDa). Lane 3 - Rabbit monoclonal IgG (ab172730). For western blotting, VeriBlot for IP Detection Reagent (HRP) (ab131366), was used for detection at 1/10,000 dilution. Blocking buffer and concentration: 5% NFDM/TBST Dilution buffer and concentration: 5% NFDM/TBST
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab33905).

All lanes:
Immunoprecipitation - Anti-Bcl10 antibody [EP606Y] (ab33905)

Predicted band size: 26 kDa



Western blot - Anti-Bcl10 antibody [EP606Y] - BSA and Azide free (ab189219)

Bcl10 Western blot staining using rabbit Anti-Bcl10 antibody

This data was developed using the same antibody clone in a different buffer formulation (ab33905).
Lanes 1-4: Merged signal (red and green). Green - ab33905 observed at 32 kDa. Red - loading control, ab7291 observed at 52 kDa.

ab33905 Anti-Bcl10 antibody [EP606Y] was shown to specifically react with Bcl10 in wild-type HeLa cells. Loss of signal was observed when knockout cell line ab261797 (knockout cell lysate ab257144) was used. Wild-type and Bcl10 knockout samples were subjected to SDS-PAGE. ab33905 and Anti-alpha Tubulin antibody [DM1A] - Loading Control (ab7291) were incubated overnight at 4°C at 1 in 1000 dilution and 1 in 20000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preadsorbed (ab216773) and Goat anti-Mouse IgG H&L (IRDye®

680RD) preadsorbed (ab216776) secondary antibodies at 1 in 10000 dilution for 1 hour at room temperature before imaging.
All lanes:
Western blot - Anti-Bcl10 antibody [EP606Y] (ab33905) at 1/1000 dilution

Lane 1:
Wild-type HeLa cell lysate at 20 µg

Lane 2:
BCL10 knockout HeLa cell lysate at 20 µg

Lane 3:
Ramos cell lysate at 20 µg

Lane 4:
A549 cell lysate at 20 µg

Performed under reducing conditions.

Predicted band size: 26 kDa

Observed band size: 32 kDa

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