abcam

ab232521

Anti-B MyB (phospho T487) antibody [EPR2204Y] - BSA and Azide free

Recombinant | RabMAb

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	EPR2204Y
Purification technique	Affinity purification Protein A
Concentration	1.056 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IHC-P

Tested

Species	Human
Dilution info	-

Notes	-

Not recommended

Species	Transfected cell line - Human, Synthetic peptide
Dilution info	-
Notes	-

WB

Tested

Species	Human, Transfected cell line - Human
Dilution info	-
Notes	-

Not recommended

Species	Synthetic peptide
Dilution info	-
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	-
Notes	-

Not recommended

Species	Transfected cell line - Human, Synthetic peptide
Dilution info	-
Notes	-

Dot

Tested

Species	Synthetic peptide
Dilution info	-
Notes	-

Expected

Species	Human
Dilution info	Use at an assay dependent concentration.
Notes	-

Not recommended

Species	Transfected cell line - 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.

Not recommended

Species	Transfected cell line - Human, Synthetic peptide
Dilution info	-
Notes	-

Target data

See full target information MYBL2 pT487

Function	Transcription factor involved in the regulation of cell survival, proliferation, and differentiation. Transactivates the expression of the CLU gene.

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

ab232521 is the carrier-free version of ab76009.

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.

Supplementary info

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

Activity summary	The B MyB protein also known as MYBL2 or B-MYB is a transcription factor involved in cell cycle regulation. It belongs to the MYB family of proteins and has a molecular weight of approximately 92 kDa. This protein is expressed in a range of tissues including proliferating cells. B MyB's activity as a transcription factor involves binding to specific DNA sequences to regulate gene expression essential for cell cycle progression particularly in the S phase where it plays a role in DNA replication and mitosis.
Biological function summary	MYBL2 participates in processes important for normal cell cycle and proliferation. It does not appear to form part of a larger protein complex but regulates genes necessary for cell division independently. B MyB significantly impacts the expression of factors that facilitate the transition from G1 to S phase of the cell cycle impacting cellular growth and replication. Its function ensures that the cells adequately prepare for DNA synthesis and subsequent mitotic division.
Pathways	Various cell cycle regulatory pathways rely on MYBL2 for their correct functioning. B MyB influences the G1/S phase transition and is associated with the E2F transcription factor pathway. In this context it regulates E2F target genes necessary for DNA synthesis. B MyB interacts with other proteins such as CDK2 and cyclins to orchestrate a synchronized cell cycle progression ensuring that cells divide correctly and effectively.
Associated diseases and disorders	B MyB is frequently associated with cancer development and progression notably in contexts where there is rapid cell proliferation such as in breast cancer and leukemia. Dysregulation of MYBL2 expression or its downstream targets can lead to uncontrolled cell division thereby contributing to oncogenesis. It associates with proteins such as p53 a pivotal tumor suppressor where alterations in their pathways can lead to malignancy. Researchers evaluate B MyB's expression and activity as potential markers for cancer diagnosis and as targets for therapeutic intervention.

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

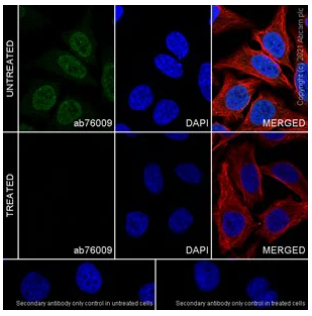
We do not recommend this combination. It is not covered by our product promise.

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.

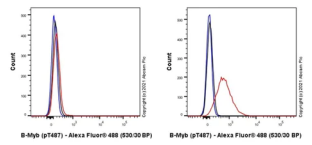
8 product images



Immunocytochemistry/ Immunofluorescence - Anti-B MyB (phospho T487) antibody [EPR2204Y] - BSA and Azide free (ab232521)

B MyB (phospho T487) Immunocytochemistry/ Immunofluorescence staining of HeLa (human cervix adenocarcinoma epithelial cell) cells using rabbit Anti-B MyB (phospho T487) antibody

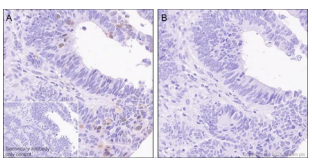
Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized HeLa (human cervix adenocarcinoma epithelial cell) cells labelling B MyB (phospho T487) with primary antibody anti-B MyB (phospho T487) (ab76009) at 1/1000 dilution, followed by Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed (ab150081) secondary antibody at 1/1000 dilution. Confocal image showing nuclear staining in HeLa cells and no staining in HeLa cells with Alkaline Phosphatase treatment 37☒ for 1 hour. Anti-alpha Tubulin antibody (DM1A) - Microtubule Marker (Alexa Fluor® 594) (ab195889) was used to counterstain tubulin at 1/200 dilution. The nuclear counter stain is DAPI (blue).
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab76009).



Flow Cytometry (Intracellular) - Anti-B MyB (phospho T487) antibody [EPR2204Y] - BSA and Azide free (ab232521)

B MyB (phospho T487) Flow Cytometry (Intracellular) staining of HeLa (human cervix adenocarcinoma) cells using rabbit Anti-B MyB (phospho T487) antibody

Intracellular Flow Cytometry analysis of HeLa (human cervix adenocarcinoma) cells treated with Alkaline Phosphatase overnight (Left) and untreated HeLa cells (Right) labeling B MyB (phospho T487) with ab76009 at 1/1000 dilution (Red). Cells were fixed with 4% Paraformaldehyde and permeabilised with 0.1% Tween-20. A Goat anti rabbit IgG (Alexa Fluor® 488, ab150081) secondary antibody was used at 1/2000 dilution. Isotype control - Rabbit monoclonal IgG (ab172730) (Black). Unlabeled control - Cell without incubation with primary antibody and secondary antibody (Blue). This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab76009).

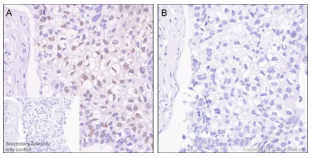


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-B MyB (phospho T487) antibody [EPR2204Y] - BSA and Azide free (ab232521)

B MyB (phospho T487) Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining of Human colon cancer tissue using rabbit Anti-B MyB (phospho T487) antibody

Immunohistochemistry analysis of paraffin-embedded Human colon cancer tissue sections labelling B MyB (phospho T487) with ab76009 at 1/8000 dilution. The section was incubated with

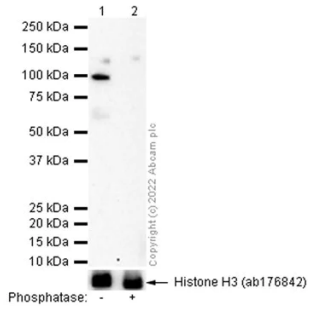
ab76009 for 30 mins at room temperature. Rabbit specific IHC polymer detection kit HRP/DAB (ab209101) was used as the secondary antibody. Sections were counterstained with Hematoxylin. Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution 2) for 20 mins.
Nuclear staining on Human colon cancer tissue without alkaline phosphatase treatment (Image A); No signal was detected when tissues were treated with alkaline phosphatase (Image B). The immunostaining was performed on a Leica Biosystems BOND® RX instrument.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab76009).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-B MyB (phospho T487) antibody [EPR2204Y] - BSA and Azide free (ab232521)

B MyB (phospho T487) Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining of Human lung cancer tissue using rabbit Anti-B MyB (phospho T487) antibody

Immunohistochemistry analysis of paraffin-embedded Human lung cancer tissue sections labelling B MyB (phospho T487) with ab76009 at 1/8000 dilution. The section was incubated with ab76009 for 30 mins at room temperature. Rabbit specific IHC polymer detection kit HRP/DAB (ab209101) was used as the secondary antibody. Sections were counterstained with Hematoxylin. Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution 2) for 20 mins.
Nuclear staining on Human lung cancer tissue without alkaline phosphatase treatment (Image A); No signal was detected when tissues were treated with alkaline phosphatase (Image B). The immunostaining was performed on a Leica Biosystems BOND® RX instrument.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab76009).



Western blot - Anti-B MyB (phospho T487) antibody [EPR2204Y] - BSA and Azide free (ab232521)

B MyB (phospho T487) Western blot staining using rabbit Anti-B MyB (phospho T487) antibody

Blocking buffer and concentration: 5% NFDM/TBST Diluting 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 (ab76009).
Lanes 1 - 2:
Western blot - Anti-B MyB (phospho T487) antibody [EPR2204Y] - BSA and Azide free (ab232521) at 1/1000 dilution

Lanes 1 - 2:
Western blot - Anti-B MyB (phospho T487) antibody [EPR2204Y] (ab76009) at 1/1000 dilution

Lane 1:
HeLa (Human cervix adenocarcinoma epithelial cell) nuclear fraction lysate at 15 µg

Lane 2:
HeLa nuclear fraction lysate treated with Alkaline Phosphatase for 1 hour at 15 µg

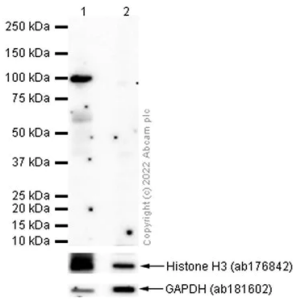
Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/20000 dilution

Predicted band size: 79 kDa

Observed band size: 100 kDa

Exposure time: 120s



Western blot - Anti-B MyB (phospho T487) antibody [EPR2204Y] - BSA and Azide free (ab232521)

B MyB (phospho T487) Western blot staining using rabbit Anti-B MyB (phospho T487) antibody

Blocking buffer and concentration: 5% NFDM/TBST Diluting 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 (ab76009).
Lanes 1 - 2:
Western blot - Anti-B MyB (phospho T487) antibody [EPR2204Y] - BSA and Azide free (ab232521) at 1/1000 dilution

Lanes 1 - 2:
Western blot - Anti-B MyB (phospho T487) antibody [EPR2204Y] (ab76009) at 1/1000 dilution

Lane 1:
HeLa (Human cervix adenocarcinoma epithelial cell) nuclear fraction lysate at 15 µg

Lane 2:
HeLa (Human cervix adenocarcinoma epithelial cell) without nuclear fraction lysate at 15 µg

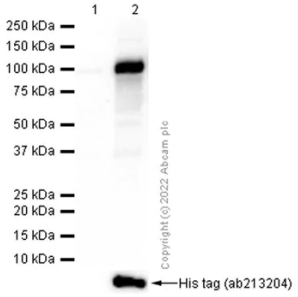
Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/20000 dilution

Predicted band size: 79 kDa

Observed band size: 100 kDa

Exposure time: 60s



Western blot - Anti-B MyB (phospho T487) antibody [EPR2204Y] - BSA and Azide free (ab232521)

Blocking buffer and concentration: 5% NFDM/TBST Diluting 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 (ab76009).
Lanes 1 - 2:
Western blot - Anti-B MyB (phospho T487) antibody [EPR2204Y] - BSA and Azide free (ab232521) at 1/1000 dilution

Lanes 1 - 2:
Western blot - Anti-B MyB (phospho T487) antibody [EPR2204Y] (ab76009) at 1/1000 dilution

Lane 1:
293T (Human embryonic kidney epithelial cell) transfected with empty vector (vector control), containing a myc-His-tag®, whole cell lysate at 20 µg

Lane 2:
293T transfected with human B MyB (WT) expression vector containing a myc-His-tag®, whole cell lysate at 20 µg

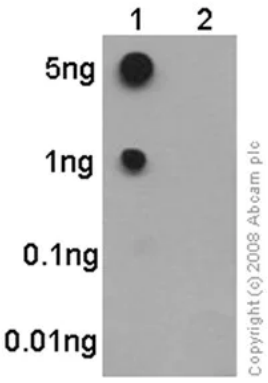
Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/20000 dilution

Predicted band size: 79 kDa

Observed band size: 100 kDa

Exposure time: 20s



Dot Blot - Anti-B MyB (phospho T487) antibody [EPR2204Y] - BSA and Azide free (ab232521)

Dot blot analysis of B MyB (pT487) phospho peptide (lane 1) and B MyB non-phospho peptide (lane 2) with ab76009 at a 1/1000 dilution. Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated (ab97051) was used as the secondary antibody at a dilution of 1/20,000.
Blocking and dilution buffer: 5% NFDM/TBST
Exposure time: 3 minutes
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab76009).

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