abcam

ab250655

Anti-BubR1 antibody [EPR12259(2)] - 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	EPR12259(2)
Purification technique	Affinity purification Protein A
Concentration	1.007 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IP

Tested

Species	Human
Dilution info	-

Notes	-

Predicted

Species	Mouse, Rat
Dilution info	-
Notes	-

WB

Tested

Species	Human
Dilution info	-
Notes	-

Predicted

Species	Mouse, Rat
Dilution info	-
Notes	-

ICC/IF

Not recommended

Species	Human, Mouse, Rat
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	-
Notes	-

Predicted

Species	Mouse, Rat
Dilution info	-
Notes	-

IHC-P

Tested

Species	Human
Dilution info	-
Notes	-

Predicted

Species	Mouse, Rat
Dilution info	-
Notes	-

Target data

See full target information BUB1B

Function Essential component of the mitotic checkpoint. Required for normal mitosis progression. The mitotic checkpoint delays anaphase until all chromosomes are properly attached to the mitotic spindle. One of its checkpoint functions is to inhibit the activity of the anaphase-promoting complex/cyclosome (APC/C) by blocking the binding of CDC20 to APC/C, independently of its kinase activity. The other is to monitor kinetochore activities that depend on the kinetochore motor CENPE. Required for kinetochore localization of CENPE. Negatively regulates PLK1 activity in interphase cells and suppresses centrosome amplification. Also implicated in triggering apoptosis in polyploid cells that exit aberrantly from mitotic arrest. May play a role for tumor suppression.

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

ab250655 is the carrier-free version of ab183496.

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	BubR1 also known as BUB1B is an important protein in the mitotic checkpoint complex with an approximate mass of 120 kDa. BubR1 ensures proper chromosome alignment and segregation during cell division by inhibiting the anaphase-promoting complex/cyclosome (APC/C) until all chromosomes achieve proper attachment to the spindle. This protein localizes mainly to the kinetochores of chromosomes and is commonly expressed in dividing cells throughout the body.

Biological function summary	The spindle assembly checkpoint mechanism involves a complex in which BubR1 plays a central role. BubR1 along with other checkpoint proteins such as Bub1 and Mad2 forms a surveillance complex ensuring the correct attachment of microtubules to kinetochores. This action prevents premature progression to anaphase reducing the risk of aneuploidy and maintaining genomic stability.
Pathways	Mitotic checkpoint control critically involves BubR1 linking closely with several proteins including Mad2 and Cdc20. BubR1 integrates into the spindle checkpoint pathway a central player in regulating mitosis. Within this pathway BubR1 inhibits APC/CCdc20 activity preventing premature anaphase onset until all chromosomes are correctly oriented to divide. Interactions between these proteins ensure accurate mitotic progression and cellular replication fidelity.
Associated diseases and disorders	BubR1 function directly impacts cancer development and premature aging syndromes. Defective BubR1 activity can lead to chromosomal instability a characteristic of many cancers including colorectal cancer. Moreover reduced BubR1 expression links with premature aging syndromes such as mosaic variegated aneuploidy through its interaction with proteins such as p53 highlighting its role in genome integrity maintenance and cellular aging processes.

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

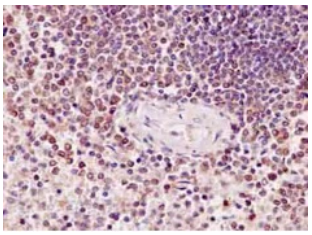
We do not recommend this combination. It is not covered by our product promise.

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.

6 product images

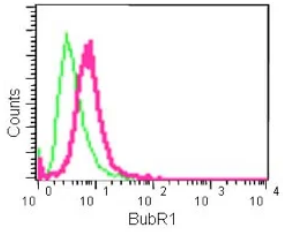


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-BubR1 antibody [EPR12259(2)] - BSA and Azide free (ab250655)

BubR1 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-BubR1 antibody

This data was developed using ab183496, the same antibody clone in a different buffer formulation.
Immunohistochemical analysis of paraffin-embedded Human spleen labeling BubR1 with ab183496 at 1/100 dilution and HRP conjugated Rabbit IgG. Counterstained with Hematoxylin.

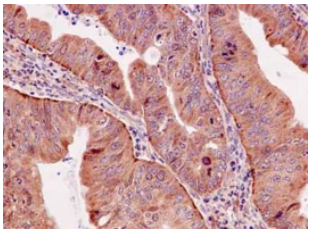
Perform heat mediated antigen retrieval with EDTA buffer pH 9 before commencing with IHC staining protocol.



Flow Cytometry (Intracellular) - Anti-BubR1 antibody [EPR12259(2)] - BSA and Azide free (ab250655)

BubR1 Flow Cytometry (Intracellular) staining using rabbit Anti-BubR1 antibody

This data was developed using ab183496, the same antibody clone in a different buffer formulation.
Intracellular flow cytometric analysis of HeLa cells fixed in 2% paraformaldehyde labeling BubR1 with ab183496 at 1/100 dilution and Goat anti rabbit IgG (FITC). Rabbit monoclonal IgG was used as an isotype control.

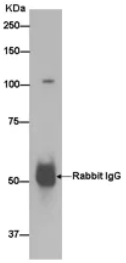


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-BubR1 antibody [EPR12259(2)] - BSA and Azide free (ab250655)

BubR1 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-BubR1 antibody

This data was developed using ab183496, the same antibody clone in a different buffer formulation.
Immunohistochemical analysis of paraffin-embedded Human ovarian carcinoma labeling BubR1 with ab183496 at 1/100 dilution and HRP conjugated Rabbit IgG. Counterstained with Hematoxylin.

Perform heat mediated antigen retrieval with EDTA buffer pH 9 before commencing with IHC staining protocol.

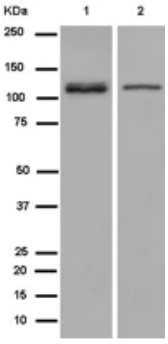


Immunoprecipitation - Anti-BubR1 antibody [EPR12259(2)] - BSA and Azide free (ab250655)

This data was developed using ab183496, the same antibody clone in a different buffer formulation.
Immunoprecipitation of HepG2 cells labeling BubR1 with ab183496 at 1/50 dilution and Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/1000.

All lanes:
Immunoprecipitation - Anti-BubR1 antibody [EPR12259(2)] (ab183496)

Predicted band size: 119 kDa



Western blot - Anti-BubR1 antibody [EPR12259(2)] - BSA and Azide free (ab250655)

BubR1 Western blot staining using rabbit Anti-BubR1 antibody

This data was developed using ab183496, the same antibody clone in a different buffer formulation.
All lanes:
Western blot - Anti-BubR1 antibody [EPR12259(2)] (ab183496) at 1/100000 dilution

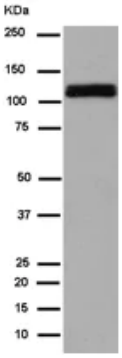
Lane 1:
HepG2 cell lysate at 20 µg

Lane 2:
Jurkat cell lysate at 20 µg

Secondary

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

Predicted band size: 119 kDa



Western blot - Anti-BubR1 antibody [EPR12259(2)] - BSA and Azide free (ab250655)

This data was developed using ab183496, the same antibody clone in a different buffer formulation.
All lanes:
Western blot - Anti-BubR1 antibody [EPR12259(2)] (ab183496) at 1/20000 dilution

All lanes:
HeLa lysate at 20 µg

Secondary

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

Predicted band size: 119 kDa

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