abcam

ab231076

Anti-Survivin antibody [EPR20448] - 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	EPR20448
Purification technique	Affinity purification Protein A
Concentration	1.036 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IP

Tested

Species	Human
Dilution info	-

Notes	-

WB

Expected

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

ICC/IF

Tested

Species	Human
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	-
Notes	-

Target data

See full target information BIRC5

Function Multitasking protein that has dual roles in promoting cell proliferation and preventing apoptosis (PubMed:20627126, PubMed:21364656, PubMed:25778398, PubMed:28218735, PubMed:9859993). Component of a chromosome passage protein complex (CPC) which is essential for chromosome alignment and segregation during mitosis and cytokinesis (PubMed:16322459). Acts as an important regulator of the localization of this complex; directs CPC movement to different locations from the inner centromere during prometaphase to midbody during cytokinesis and participates in the organization of the center spindle by associating with polymerized microtubules (PubMed:20826784). Involved in the recruitment of CPC to centromeres during early mitosis via association with histone H3 phosphorylated at 'Thr-3' (H3pT3) during mitosis (PubMed:20929775).

The complex with RAN plays a role in mitotic spindle formation by serving as a physical scaffold to help deliver the RAN effector molecule TPX2 to microtubules (PubMed:18591255). May counteract a default induction of apoptosis in G2/M phase (PubMed:9859993). The acetylated form represses STAT3 transactivation of target gene promoters (PubMed:20826784). May play a role in neoplasia (PubMed:10626797). Inhibitor of CASP3 and CASP7 (PubMed:21536684). Essential for the maintenance of mitochondrial integrity and function (PubMed:25778398). Isoform 2 and isoform 3 do not appear to play vital roles in mitosis (PubMed:12773388, PubMed:16291752). Isoform 3 shows a marked reduction in its anti-apoptotic effects when compared with the displayed wild-type isoform (PubMed:10626797).

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

ab231076 is the carrier-free version of ab208938.

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	Survivin also known as 'BIRC5 protein' is a small protein with a molecular weight of approximately 16.5 kDa. It belongs to the Inhibitor of Apoptosis (IAP) family carrying out its functions through inhibiting caspases and averting apoptosis. Survivin is expressed highly in embryonic tissues and various cancers but its expression in adult differentiated tissues is low. This selective expression pattern makes Survivin an attractive target for cancer research and therapeutic development.
Biological function summary	Survivin aids cell division and regulates apoptosis. It plays a major role as a chromosomal passenger protein functioning in concert with other members of the chromosomal passenger complex including Aurora B kinase INCENP and Borealin. During mitosis Survivin helps ensure proper chromosome alignment segregation and cytokinesis. Its ability to inhibit apoptosis allows it to enhance cell survival contributing to tumor progression when deregulated.
Pathways	Survivin is part of the cell cycle regulation and apoptosis pathways. It plays an integral role in the mitotic spindle checkpoint working closely with Aurora B kinase to regulate mitosis. Additionally the protein interfaces with the extrinsic apoptosis pathway interacting with members like XIAP to prevent caspase activation and cell death. These interactions reveal Survivin's dual function in promoting mitosis and regulating apoptosis which is essential for maintaining cellular homeostasis.
Associated diseases and disorders	Survivin is highly connected to cancer and neurodegenerative disorders. Its overexpression links with cancers such as colorectal cancer where it promotes malignancy through inhibiting apoptosis and ensuring unchecked cell division. In neurodegenerative disorders abnormal regulation of Survivin could lead to insufficient cellular survival contributing to diseases like Alzheimer's. The relationship between Survivin and XIAP in cancer highlights its potential as a therapeutic target aiming to induce apoptosis in cancer cells by overcoming Survivin-mediated resistance.

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.

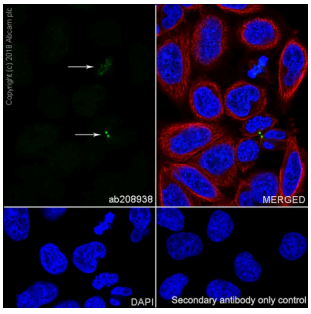
We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

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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5 product images



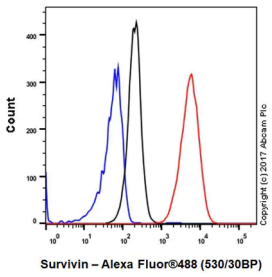
Immunocytochemistry/ Immunofluorescence - Anti-Survivin antibody [EPR20448] - BSA and Azide free (ab231076)

Survivin Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-Survivin antibody

Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized HeLa (human epithelial cell line from cervix adenocarcinoma) cells labeling Survivin with ab208938 at 1/5000 dilution, followed by Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) (ab150077) secondary antibody at 1/1000 dilution (green). Confocal image showing kinetochores and midbody (arrow) staining in the HeLa cell line. The nuclear counter stain is DAPI (blue).
Tubulin is detected with Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) (ab195889) at 1/200 dilution (red).

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) (ab150077) at 1/500 dilution.

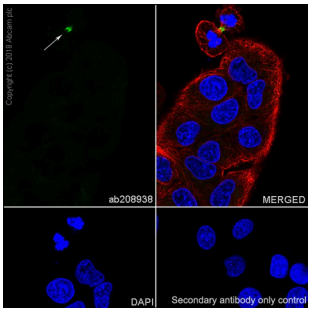
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab208938).



Flow Cytometry (Intracellular) - Anti-Survivin antibody [EPR20448] - BSA and Azide free (ab231076)

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

Intracellular flow cytometric analysis of 4% paraformaldehyde-fixed, 90% methanol-permeabilized ï¿½HeLa (human epithelial cell line from cervix adenocarcinoma) cell line labeling ï¿½Survivin with ab208938 at 1/500 dilution (red) compared with a Rabbit IgG, monoclonal [EPR25A] - Isotype Control (ab172730) (black) and an unlabeled control (cells without incubation with primary antibody and secondary antibody) (blue). Goat Anti-Rabbit IgG H&L (Alexa Fluorï¿½ 488) (ab150077) at 1/2000 dilution was used as the secondary antibody.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab208938).



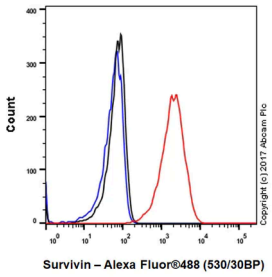
Immunocytochemistry/ Immunofluorescence - Anti-Survivin antibody [EPR20448] - BSA and Azide free (ab231076)

Survivin Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-Survivin antibody

Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized A549 (human lung carcinoma cell line) cells labeling Survivin with ab208938 at 1/5000 dilution, followed by Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) (ab150077) secondary antibody at 1/1000 dilution (green). Confocal image showing midbody (arrow) staining in the A549 cell line. The nuclear counter stain is DAPI (blue).
Tubulin is detected with Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) (ab195889) at 1/200 dilution (red).

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) (ab150077) at 1/500 dilution.

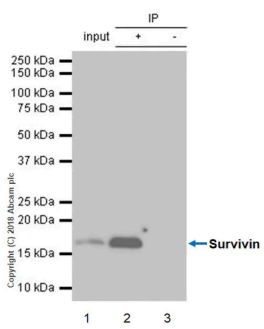
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab208938).



Flow Cytometry (Intracellular) - Anti-Survivin antibody [EPR20448] - BSA and Azide free (ab231076)

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

Intracellular flow cytometric analysis of 4% paraformaldehyde-fixed, 90% methanol-permeabilized ï¿½A549 (human lung carcinoma cell line) cell line labeling ï¿½Survivin with ab208938 at 1/500 dilution (red) compared with a Rabbit IgG, monoclonal [EPR25A] - Isotype Control (ab172730) (black) and an unlabeled control (cells without incubation with primary antibody and secondary antibody) (blue). Goat Anti-Rabbit IgG H&L (Alexa Fluorï¿½ 488) (ab150077) at 1/2000 dilution was used as the secondary antibody.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab208938).



Immunoprecipitation - Anti-Survivin antibody [EPR20448] - BSA and Azide free (ab231076)

Survivin was immunoprecipitated from 0.35mg of A549 (human lung carcinoma cell line) whole cell lysate with ab208938 at 1/30 dilution. Western blot was performed from the immunoprecipitate using ab208938 at 1/1,000 dilution. VeriBlot for IP Detection Reagent (HRP) (ab131366), was used for detection at 1/10,000 dilution.
Lane 1: A549 whole cell lysate 10 µg (Input).

Lane 2: ab208938 IP in A549 whole cell lysate.

Lane 3: Rabbit monoclonal IgG (ab172730) instead of ab208938 in A549 whole cell lysate.

Blocking and dilution buffer and concentration: 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 (ab208938).

All lanes:
Immunoprecipitation - Anti-Survivin antibody [EPR20448] (ab208938)

Predicted band size: 16 kDa

Observed band size: 16 kDa

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