abcam

ab76424

Anti-Survivin antibody [EP2880Y]

Anti-Survivin antibody [EP2880Y] (ab76424) is a rabbit monoclonal antibody detecting Survivin in **Western Blot, Flow Cytometry (Intra), IP, IHC-P, ICC/IF, ELISA**. Suitable for **Human**.

- Biophysical QC for unrivalled batch-batch consistency
- Over 160 publications
- Trusted since 2009

Recombinant | RabMAb | 20ul selling size

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Clone number	EP2880Y
Purification technique	Affinity purification Protein A
Dissociation constant	4.4 x 10^{-10} M
Concentration	2.379 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IP

Tested

Species	Human
Dilution info	1/150
Notes	**For unpurified use at 1:10.**

WB

Tested

Species	Human
Dilution info	1/5000 - 1/20000
Notes	ab76424 has a low sensitivity issue in western blot. We recommend ab208938 as an alternative.

sELISA

Tested

Species	Human
Dilution info	0.5 µg/mL
Notes	For sandwich ELISA, use this antibody as detection at 0.5µg/ml with ab27468 as capture.

ICC/IF

Tested

Species	Human
Dilution info	1/100 - 1/250
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/500

Notes	ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody. For unpurified use at 1/50.

IHC-P

Tested

Species	Human
Dilution info	1/1000
Notes	Signal amplification system might be necessary or the use of polymerized HRP secondary antibodies. **For unpurified use at 1/250 - 1/500.** Perform heat-mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

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	Conditional Ambient

Appropriate short-term storage duration	1-2 weeks
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle

Notes

What is this antibody validated in?
Anti-Survivin antibody [EP2880Y] (ab76424) is a rabbit recombinant monoclonal antibody and is validated for use in Western Blot (WB), Flow Cytometry (Intra), Immunoprecipitation (IP), Immunohistochemistry (IHC-P), Immunocytochemistry/immunofluorescence (ICC/IF), ELISA in Human samples.

What is the molecular weight of Survivin?
Anti-Survivin [EP2880Y] (ab76424) specifically detects a band for Survivin (UniProt: O15392) at a molecular weight of 16kDa.

Trusted by the scientific community
Anti-Survivin [EP2880Y] (ab76424) was first used in a scientific publication in 2009 and has been cited over 160 times in peer-reviewed journals.

Reviewed by scientists
Anti-Survivin [EP2880Y] (ab76424) has over 5 independent reviews from customers.

Other related products
We have a range of other formats of antibody clone [EP2880Y] also available for your convenience: ab76424, Carrier free - ab192675, Alexa Fluor® 488 - ab204264, Alexa Fluor® 647 - ab204464, Alexa Fluor® 594 - ab207879

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

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.

Trial sizes available!
Test your antibody or perform pre-screening before committing to a larger quantity. Sold in 20µl. Discover our selection of trial-size antibodies.

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

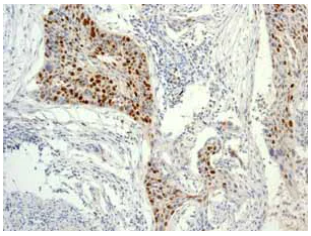
We do not recommend this combination. It is not covered by our product promise.

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.

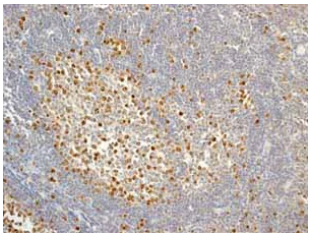
18 product images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Survivin antibody [EP2880Y] (ab76424)

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

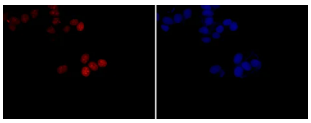
Unpurified ab76424 showing positive staining in cervical carcinoma tissue. Heat mediated antigen retrieval was performed before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Survivin antibody [EP2880Y] (ab76424)

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

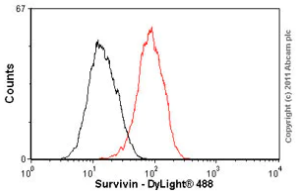
Unpurified ab76424 showing positive staining in normal tonsil tissue. Heat mediated antigen retrieval was performed before commencing with IHC staining protocol.



Immunocytochemistry/ Immunofluorescence - Anti-Survivin antibody [EP2880Y] (ab76424)

Survivin Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-Survivin antibody

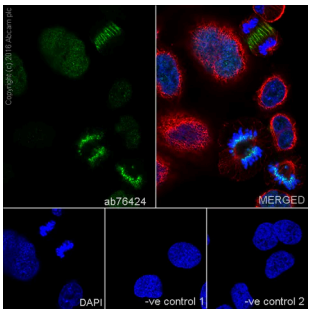
Immunocytochemistry/Immunofluorescence analysis of MCF-7 cells labelling Survivin with unpurified ab76424 at 1/100. Cells were fixed with 4% paraformaldehyde for 20 minutes at room temperature. Cells were incubated with the primary antibody overnight. An Alexa Fluor® 555-conjugated anti-rabbit IgG was used as the secondary antibody. Left - Survivin, Right - DAPI.



Flow Cytometry (Intracellular) - Anti-Survivin antibody [EP2880Y] (ab76424)

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

Overlay histogram showing HeLa cells stained with unpurified ab76424 (red line). The cells were fixed with methanol (5 min) and then permeabilized with 0.1% PBS-Tween for 20 min. The cells were then incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions followed by the antibody (ab76424, 1/50 dilution) for 30 min at 22°C. The secondary antibody used was DyLight® 488 goat anti-rabbit IgG (H+L) (ab96899) at 1/500 dilution for 30 min at 22°C. Isotype control antibody (black line) was rabbit monoclonal IgG (1µg/1x10^6 cells) used under the same conditions. Acquisition of >5,000 events was performed. This antibody gave a decreased signal in HeLa cells fixed with 4% paraformaldehyde/permeabilized with 0.1% PBS-Tween 20 used under the same conditions.

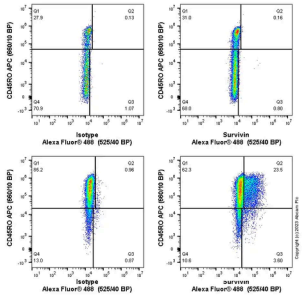


Immunocytochemistry/ Immunofluorescence - Anti-Survivin antibody [EP2880Y] (ab76424)

Survivin Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-Survivin antibody

Immunofluorescent staining of MCF-7 cells labelling Bcl-2 with purified ab76424 at 1/1000. Cells were fixed with 4% paraformaldehyde and permeabilized with 0.1% Triton X-100. ab150077, an Alexa Fluor® 488-conjugated goat anti-rabbit IgG (1/1000) was used as the secondary antibody. The cells were co-stained with ab7291, a mouse anti-tubulin (1/1000) using ab150120, an Alexa Fluor® 594-conjugated goat anti-mouse IgG (1/1000) as the secondary antibody. Nuclei counterstained with DAPI (blue).
Control 1: primary antibody (1/100) and secondary antibody, ab150120, an Alexa Fluor® 594-conjugated goat anti-mouse IgG (1/500).

Control 2: ab7291 (1/1000) and secondary antibody, ab150077, an Alexa Fluor® 488-conjugated goat anti-rabbit IgG (1/500).



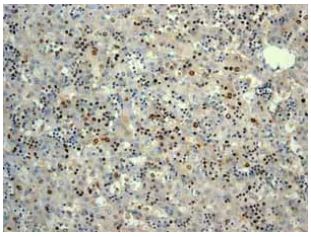
Flow Cytometry (Intracellular) - Anti-Survivin antibody [EP2880Y] (ab76424)

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

Flow cytometry staining of human peripheral blood mononuclear cells (PBMCs) (top) or PBMCs treated with 1µg/mL PHA for 24h followed by 20U/mL IL-2 for 48h (bottom), with ab76424 (right) or Recombinant Rabbit IgG, monoclonal [EPR25A] - Isotype Control (left). Cells were fixed and permeabilised with BD Cytofix/Cytoperm™ for 20 min. PBMCs were incubated for 30 min at 4°C in 1x PBS containing 10 µg/ml human IgG and 10 % normal goat serum to block FC receptors and non-specific protein-protein interaction followed by the antibody ab76424 or Recombinant Rabbit IgG, monoclonal [EPR25A] - Isotype Control (1x 106 in 100 µl at 0.2 µg/ml (1/11100)) for 30 min at 4°C . The cells were simultaneously stained with CD45RO.

The secondary antibody Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed was incubated at 1/4000 for 30min at 4°C

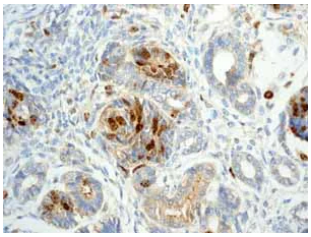
Acquisition of >30000 events were collected using a 50 mW Blue laser (488nm) and 525/40 bandpass filter. Events were gated on CD4+ cells.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Survivin antibody [EP2880Y] (ab76424)

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

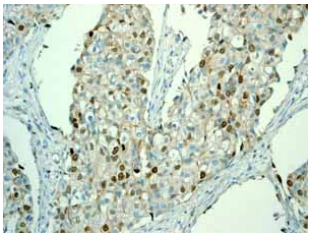
Unpurified ab76424 showing positive staining in fetal liver tissue. Heat mediated antigen retrieval was performed before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Survivin antibody [EP2880Y] (ab76424)

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

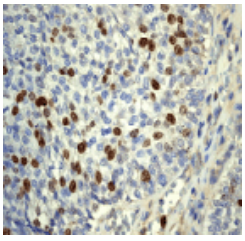
Unpurified ab76424 showing positive staining in Fetal kidney tissue. Heat mediated antigen retrieval was performed before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Survivin antibody [EP2880Y] (ab76424)

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

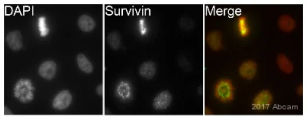
Unpurified ab76424 showing positive staining in breast carcinoma tissue. Heat mediated antigen retrieval was performed before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Survivin antibody [EP2880Y] (ab76424)

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

Unpurified ab76424 at 1/250 dilution staining Survivin in human urinary bladder carcinoma by Immunohistochemistry, Paraffin-embedded tissue. Heat mediated antigen retrieval was performed before commencing with IHC staining protocol.

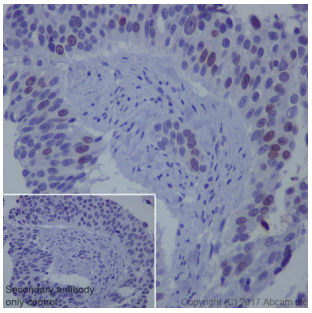


This image is courtesy of a customer review submitted by Kirk Mcmanus.

Immunocytochemistry/ Immunofluorescence - Anti-Survivin antibody [EP2880Y] (ab76424)

Survivin Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-Survivin antibody

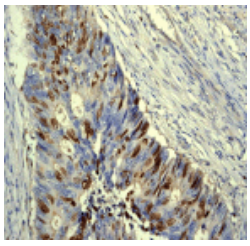
ab76424 staining Survivin in the Hela cell line from Human cervix by ICC/IF (Immunocytochemistry/immunofluorescence). Cells were fixed with paraformaldehyde, permeabilized with 0.5% Triton X-100. Samples were incubated with primary antibody (1/500 in PBS) for 1 hour at 22°C. ab150081 (1/200) was used as the secondary antibody.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Survivin antibody [EP2880Y] (ab76424)

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

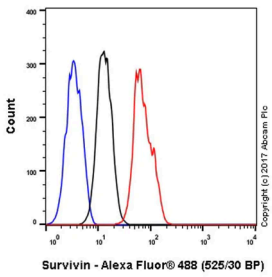
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of Human bladder carcinoma tissue sections labeling Survivin with Purified ab76424 at 1:1000 dilution (2.52 µg/ml). Heat mediated antigen retrieval was performed using Tris/EDTA Buffer, pH 9.0. Tissue was counterstained with Hematoxylin. ab97051 Goat Anti-Rabbit IgG H&L (HRP) secondary antibody was used at 1:500 dilution. PBS instead of the primary antibody was used as the negative control.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Survivin antibody [EP2880Y] (ab76424)

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

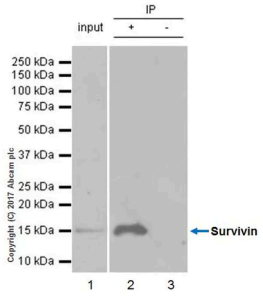
Unpurified ab76424 at 1/250 dilution staining Survivin in human colonic adenocarcinoma by Immunohistochemistry, Paraffin-embedded tissue. Heat mediated antigen retrieval was performed before commencing with IHC staining protocol.



Flow Cytometry (Intracellular) - Anti-Survivin antibody [EP2880Y] (ab76424)

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

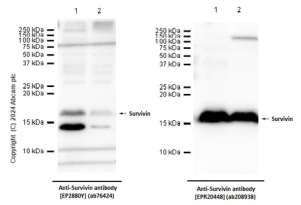
Intracellular Flow Cytometry analysis of HeLa (Human cervix adenocarcinoma epithelial cell) cells labeling Survivin with purified ab76424 at 1/500 dilution (5 µg/ml) (red). Cells were fixed with 80% methanol. A Goat anti rabbit IgG (Alexa Fluor® 488) secondary antibody was used at 1/2000 dilution. Isotype control - Rabbit monoclonal IgG (Black). Unlabeled control - Cell without incubation with primary antibody and secondary antibody (Blue).



Immunoprecipitation - Anti-Survivin antibody [EP2880Y] (ab76424)

ab76424 (purified) at 1:150 dilution (5µg) immunoprecipitating Survivin in Ramos whole cell lysate.
Lane 1 (input): Ramos (Human Burkitt's lymphoma B lymphocyte) whole cell lysate 10µg
Lane 2 (+): ab76424 & Ramos whole cell lysate
Lane 3 (-): Rabbit monoclonal IgG (ab172730) instead of ab76424 in Ramos whole cell lysate
For western blotting, VeriBlot for IP Detection Reagent (HRP) (ab131366) was used for detection at 1:1000 dilution.
Blocking and diluting buffer: 5% NFDM/TBST.
All lanes:
Immunoprecipitation - Anti-Survivin antibody [EP2880Y] (ab76424)

Predicted band size: 16 kDa



Western blot - Anti-Survivin antibody [EP2880Y] (ab76424)

Blocking and diluting buffer and concentration: 5% NFDM /TBST

ab76424 has a low sensitivity issue in western blot. We recommend ab208938 as an alternative.

All lanes:
Western blot - Anti-Survivin antibody [EP2880Y] (ab76424) at 1/1000 dilution

Lane 1:
HeLa (human cervix adenocarcinoma epithelial cell) whole cell lysate at 20 µg

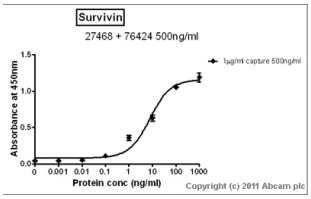
Lane 2:
Jurkat (human T cell leukemia cell line from peripheral blood) whole cell lysate at 20 µg

Secondary

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

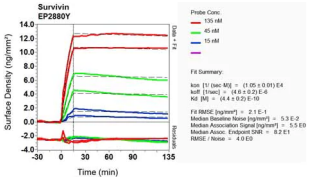
Observed band size: 16 kDa

Exposure time: 60s



Sandwich ELISA - Anti-Survivin antibody [EP2880Y] (ab76424)

Standard curve for Survivin (Analyte: ab87202); dilution range 1pg/ml to 1µg/ml using Capture Antibody ab27468 at 1µg/ml and Detector Antibody abRabbit monoclonal [EP2880Y] to Survivin (ab76424) at 0.5µg/ml. Concentration of Rabbit monoclonal [EP2880Y] to Survivin (ab76424) may vary from lot to lot; please use this curve as guideline.



OI-RD Scanning - Anti-Survivin antibody [EP2880Y] (ab76424)

We have systematically measured KD (the equilibrium dissociation constant between the antibody and its antigen), of more than 840 recombinant antibodies to assess not only their individual KD values but also to see the average affinity of antibody. Based on the comparison with published literature values for mouse monoclonal antibodies, Recombinant antibodies appear to be on average 1-2 order of magnitude higher affinity.

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