abcam

ab469

Anti-Survivin antibody

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.4 Preservative: 0.05% Sodium azide Constituents: 99% Tris glycine, 0.876% Sodium chloride
Form	Liquid
Clonality	Polyclonal
Immunogen	Recombinant Full Length Protein corresponding to Human BIRC5. Database link O15392
Purification technique	Affinity purification Immunogen
Concentration	1 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IHC-P

Tested

Species	Human
Dilution info	0.5 µg/mL
Notes	-

Predicted

Species	Dog, Cat, Mouse, Cow, Rat

Dilution info	-
Notes	-

IP

Expected

Species	Mouse
Dilution info	-
Notes	Recommended to use at 5-7 µg/ml.

Species	Rat
Dilution info	-
Notes	Recommended to use at 5-7Âµg/ml.

Species	Human
Dilution info	-
Notes	Recommended to use at 5-7 µg/ml.

Species	Dog
Dilution info	-
Notes	Recommended to use at 5-7 µg/ml.

Species	Cat
Dilution info	-
Notes	Recommended to use at 5-7 µg/ml.

Species	Cow
Dilution info	-
Notes	Recommended to use at 5-7 µg/ml.

Flow Cyt

Expected

Species	Mouse
Dilution info	-

Notes	ab171870 - Rabbit polyclonal IgG, is suitable for use as an isotype control with this antibody.

Species	Rat
Dilution info	-
Notes	ab171870 - Rabbit polyclonal IgG, is suitable for use as an isotype control with this antibody.

Species	Human
Dilution info	-
Notes	ab171870 - Rabbit polyclonal IgG, is suitable for use as an isotype control with this antibody.

Species	Dog
Dilution info	-
Notes	ab171870 - Rabbit polyclonal IgG, is suitable for use as an isotype control with this antibody.

Species	Cat
Dilution info	-
Notes	ab171870 - Rabbit polyclonal IgG, is suitable for use as an isotype control with this antibody.

Species	Cow
Dilution info	-
Notes	ab171870 - Rabbit polyclonal IgG, is suitable for use as an isotype control with this antibody.

ELISA

Expected

Species	Mouse, Rat, Human, Dog, Cat, Cow
Dilution info	Use at an assay dependent concentration.
Notes	-

WB

Tested

Species	Human
Dilution info	1 µg/mL
Notes	Found to work at 1/5000 dilution.

Predicted

Species	Dog, Cat, Mouse, Cow, Rat
Dilution info	-
Notes	-

RIP

Expected

Species	Mouse, Rat, Human, Dog, Cat, Cow
Dilution info	Use at an assay dependent concentration.
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	1/250
Notes	See Abreview by William Moore; fix with formaldehyde.

Predicted

Species	Dog, Cat, Mouse, Cow, Rat
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 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

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

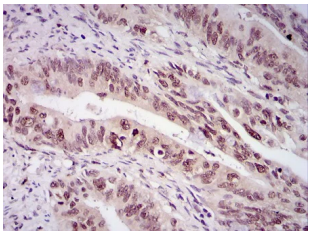
We do not recommend this combination. It is not covered by our product promise.

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.

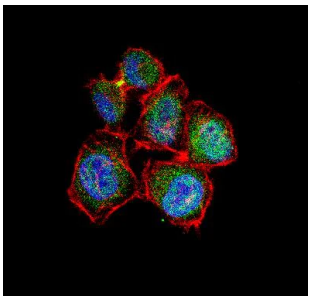
Full details and terms and conditions can be found here:
Terms & Conditions.

9 product images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Survivin antibody (ab469)

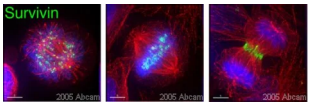
Paraffin-embedded human rectal cancer tissue stained for Survivin using ab469 at 0.5 µg/ml in immunohistochemical analysis, using DAB with hematoxylin counterstain.



Immunocytochemistry/ Immunofluorescence - Anti-Survivin antibody (ab469)

Survivin Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-Survivin antibody

HeLa (human epithelial cell line from cervix adenocarcinoma) cells stained for Survivin (green) using ab469 at 1/10 dilution in ICC/IF. An Alexa Fluor 488-conjugated Goat to rabbit IgG was used as secondary antibody (green). Actin filaments were labeled with Alexa Fluor 568 phalloidin (red). DAPI was used to stain the cell nuclei (blue).

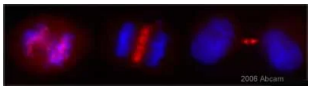


This image is courtesy of William Moore

Immunocytochemistry/ Immunofluorescence - Anti-Survivin antibody (ab469)

Survivin Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-Survivin antibody

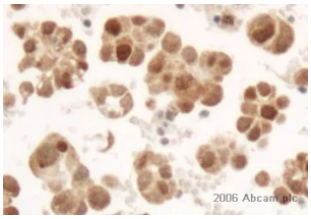
HeLa cells (ab150035) in prometaphase, metaphase and anaphase stained with anti-Survivin (green), anti-tubulin (red) and DAPI (blue). These images were kindly supplied as part of the review submitted by William Moore, University of Dundee, UK.



Immunocytochemistry/ Immunofluorescence - Anti-Survivin antibody (ab469)

Survivin Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-Survivin antibody

ab469 at a 1/400 dilution staining HeLa cells by Immunocytochemistry. The antibody was incubated with the cells for 1 hour and then was detected using a Texas Red conjugated Goat anti-rabbit antibody.
This image is courtesy of an Abreview by **Sandrine Ruchaud** submitted on **30 March 2006.**

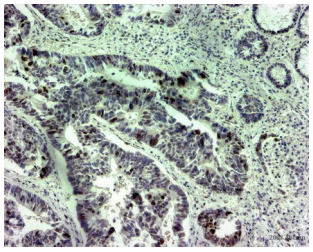


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Survivin antibody (ab469)

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

This image is courtesy of a customer review submitted by Dr Ben Davidson

ab469 staining Survivin from Human Ovarian carcionoma tumour tissue sections by Immunohistochemistry (Formalin-fixed paraffin-embedded sections). Heat mediated antigen retrieval was performed (Citrate buffer pH=6, microwave oven) and the tissue was then formaldehyde fixed and blocked (Hydrogen peroxide 0.03%). An HRP conjugated goat anti-rabbit was used as the secondary antibody.

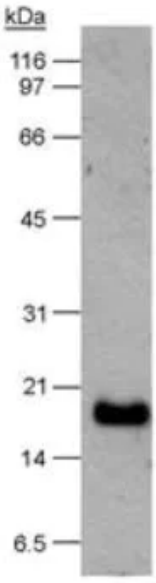


This image is courtesy of a customer review submitted by Mr. Rudolf Jung.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Survivin antibody (ab469)

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

Paraformaldehyde-fixed, paraffin-embedded human colon carcinoma tissue stained for Survivin using ab469 at 1/500 dilution in immunohistochemical analysis.



Western blot - Anti-Survivin antibody (ab469)

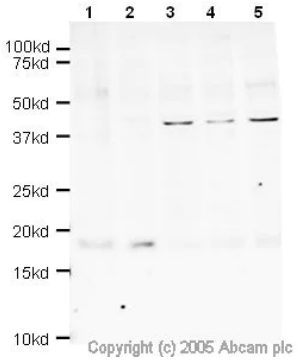
All lanes:
Western blot - Anti-Survivin antibody (ab469) at 1 µg/mL

All lanes:
HeLa (human epithelial cell line from cervix adenocarcinoma) whole cell lysate at 30 µg

Developed using the ECL technique.

Predicted band size: 16 kDa, 18 kDa, 31 kDa, 9 kDa

Exposure time: 1min



Western blot - Anti-Survivin antibody (ab469)

All lanes:
Western blot - Anti-Survivin antibody (ab469) at 1 µg/mL

Lane 1:
HeLa Nuclear at 20 µg

Lane 2:
HeLa whole cell lysate at 20 µg

Lane 3:
A431 cell lysate at 20 µg

Lane 4:
Jurkat cell lysate at 20 µg

Lane 5:
HEK293 cell lysate at 20 µg

Secondary

All lanes:
Alexa Fluor anti-rabbit at 1/5000 dilution

Performed under reducing conditions.

Predicted band size: 16 kDa

Observed band size: 18 kDa, 37 kDa, 50 kDa

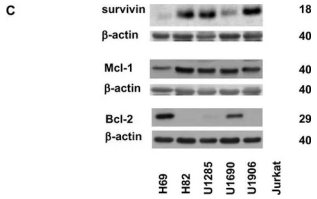


Image collected and cropped by CiteAb under a CC-BY license from the publication

Western blot - Anti-Survivin antibody (ab469)

Survivin Western blot staining using rabbit Anti-Survivin antibody

Western Blotting using Anti-Survivin antibody, ab469. Publication image from Vaculová, A. et al., 2010, Mol Cancer, 20416058. Legend direct from paper.

SCLC cell lines significantly differ in expression of proteins involved in TRAIL signaling. The level of (A) pro-caspase-8, -2, -10, (B) FADD, cFLIPL, cFLIPS, and (C) survivin, Mcl-1, and Bcl-2 proteins in H69, H82, U1285, U1690, and U1906 cells. An equal loading was controlled using anti-β-actin antibody. Jurkat cells were used as a positive control for expression of caspase-10. Results are representative of three independent experiments.

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