Product datasheet

Anti-Survivin antibody ab469

Overview

Product name: Anti-Survivin antibody
Description: Rabbit polyclonal to Survivin
Host species: Rabbit
Specificity: Specific for survivin.
Tested applications: Suitable for: ICC/IF, WB, IHC-P, ELISA, Flow Cyt, IP, RIP
Species reactivity: Reacts with: Mouse, Rat, Cow, Cat, Dog, Human
Immunogen: Recombinant full length protein corresponding to Human Survivin. Database link: O15392
Positive control: WB: Jurkat whole cell lysate (ab7899), HeLa whole cell lysate (ab150035). ICC: HeLa cells. IHC-P: Human ovarian carcinoma, rectal cancer and colon carcinoma tissues.

Properties

Form: Liquid
Storage buffer: Preservative: 0.05% Sodium azide
Constituents: 0.876% Sodium chloride, 99% Tris glycine
Purity: Immunogen affinity purified
Clonality: Polyclonal
Isotype: IgG

Applications

Our Abpromise guarantee covers the use of ab469 in the following tested applications.
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

<table>
<thead>
<tr>
<th>Application</th>
<th>Abreviews</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>ICC/IF</td>
<td>⭐⭐⭐⭐⭐</td>
<td>1/250. See Abreview by William Moore; fix with formaldehyde.</td>
</tr>
</tbody>
</table>
Function
Component of the chromosomal passenger complex (CPC), a complex that acts as a key regulator of mitosis. The CPC complex has essential functions at the centromere in ensuring correct chromosome alignment and segregation and is required for chromatin-induced microtubule stabilization and spindle assembly. 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. May play a role in neoplasia. May counteract a default induction of apoptosis in G2/M phase. Inhibitor of caspase-3 and caspase-7. Isoform 2 and isoform 3 do not appear to play vital roles in mitosis. Isoform 3 shows a marked reduction in its anti-apoptotic effects when compared with the displayed wild-type isoform.

Tissue specificity
Expressed only in fetal kidney and liver, and to lesser extent, lung and brain. Abundantly expressed in adenocarcinoma (lung, pancreas, colon, breast, and prostate) and in high-grade lymphomas. Also expressed in various renal cell carcinoma cell lines.

Sequence similarities
Belongs to the IAP family. Contains 1 BIR repeat.

Developmental stage
Expression is cell cycle-dependent and peaks at mitosis.

Domain
The BIR repeat is necessary and sufficient for HBXIP binding.

Post-translational modifications
Ubiquitination is required for centrosomal targeting. In vitro phosphorylation at Thr-117 by AURKB/STK12 prevents interaction with INCENP and localization to mitotic chromosomes.

Cellular localization
Cytoplasm. Nucleus. Chromosome. Chromosome > centromere. Cytoplasm > cytoskeleton > spindle. Localizes on chromosome arms and inner centromeres from prophase through metaphase and then transferring to the spindle midzone and midbody from anaphase through cytokinesis. Colocalizes with AURKB at mitotic chromosomes.

Target

<table>
<thead>
<tr>
<th>Application</th>
<th>Abreviews</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>WB</td>
<td></td>
<td>Use a concentration of 1 µg/ml. Predicted molecular weight: 16 kDa. Found to work at 1/5000 dilution.</td>
</tr>
<tr>
<td>IHC-P</td>
<td></td>
<td>Use a concentration of 0.5 µg/ml. Perform heat mediated antigen retrieval via the pressure cooker method before commencing with IHC staining protocol.</td>
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<tr>
<td>ELISA</td>
<td></td>
<td>Use at an assay dependent concentration.</td>
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<tr>
<td>Flow Cyt</td>
<td></td>
<td>Use at an assay dependent concentration. ab171870 - Rabbit polyclonal IgG, is suitable for use as an isotype control with this antibody.</td>
</tr>
<tr>
<td>IP</td>
<td></td>
<td>Use at an assay dependent concentration. Recommended to use at 5-7µg/ml.</td>
</tr>
<tr>
<td>RIP</td>
<td></td>
<td>Use at an assay dependent concentration. PubMed: 19542185</td>
</tr>
</tbody>
</table>

Images
Western blot - Anti-Survivin antibody (ab469)

All lanes: Anti-Survivin antibody (ab469) at 1 µg/ml

Lane 1: HeLa Nuclear
Lane 2: HeLa whole cell lysate
Lane 3: A431 cell lysate
Lane 4: Jurkat cell lysate
Lane 5: HEK293 cell lysate

Lysates/proteins at 20 µg per lane.

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

Why is the actual band size different from the predicted?
Additional bands at: 37 kDa, 50 kDa. We are unsure as to the identity of these extra bands.

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.
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).

ab49 staining Survivin from Ovarian carcinoma 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.

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)

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.

Immunoprecipitation - Anti-Survivin antibody (ab469)

ab469 immunoprecipitating Survivin from HeLa cell lysate. HeLa cells were lysed after colcemid block (ON) and immunoprecipitated with ab469 at a 1/1000 dilution. HeLa cells clear lysate (Lane 1) as well as the bound material (Lane 2) were loaded on a 15 % acrylamide gel. An HRP conjugated Donkey Anti-rabbit IgG was used as the secondary antibody.

This image is courtesy of an Abreview by Sandrine Ruchaud submitted on 12 April 2006.

Western blot - Anti-Survivin antibody (ab469)

Anti-Survivin antibody (ab469) at 1 µg/ml + HeLa (human epithelial cell line from cervix adenocarcinoma) whole cell lysate at 30 µg

Developed using the ECL technique.

**Predicted band size:** 16 kDa

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

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