abcam

# ab239892

# Anti-Securin antibody [EPR3240] - 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** | EPR3240 |
| **Purification technique** | Affinity purification Protein A |
| **Concentration** | 0.989 mg/mL The concentration of this product may be batch-dependent<br>Batch concentration finder → |

## Reactivity data

## IHC-P

### Tested

| | |
|---|---|
| **Species** | Human |
| **Dilution info** | - |

| | |
|---|---|
| **Notes** | Perform heat-mediated antigen retrieval before commencing with IHC staining protocol. |

### Not recommended

| | |
|---|---|
| **Species** | Transfected cell lysate - Human |
| **Dilution info** | - |
| **Notes** | - |

## WB

### Tested

| | |
|---|---|
| **Species** | Human, Transfected cell lysate - Human |
| **Dilution info** | - |
| **Notes** | - |

## ICC/IF

### Tested

| | |
|---|---|
| **Species** | Human |
| **Dilution info** | - |
| **Notes** | - |

### Not recommended

| | |
|---|---|
| **Species** | Transfected cell lysate - Human |
| **Dilution info** | - |
| **Notes** | - |

## Flow Cyt (Intra)

### Tested

| | |
|---|---|
| **Species** | Human |
| **Dilution info** | - |

| | |
|---|---|
| **Notes** | ab199376 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody. |

### Not recommended

| | |
|---|---|
| **Species** | Transfected cell lysate - Human |
| **Dilution info** | - |
| **Notes** | - |

## Target data

See full target information PTTG1

| | |
|---|---|
| **Function** | Regulatory protein, which plays a central role in chromosome stability, in the p53/TP53 pathway, and DNA repair. Probably acts by blocking the action of key proteins. During the mitosis, it blocks Separase/ESPL1 function, preventing the proteolysis of the cohesin complex and the subsequent segregation of the chromosomes. At the onset of anaphase, it is ubiquitinated, conducting to its destruction and to the liberation of ESPL1. Its function is however not limited to a blocking activity, since it is required to activate ESPL1. Negatively regulates the transcriptional activity and related apoptosis activity of TP53. The negative regulation of TP53 may explain the strong transforming capability of the protein when it is overexpressed. May also play a role in DNA repair via its interaction with Ku, possibly by connecting DNA damage-response pathways with sister chromatid separation. |

## 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

ab239892 is the carrier-free version of ab79546.

**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.

**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** | Securin also known as PTTG1 (pituitary tumor-transforming gene 1) is a protein involved in the regulation of sister chromatid separation during cell division. It inhibits Separase an enzyme important for this separation. Securin has a molecular mass of approximately 22 kDa. Its expression is notable in various tissues including the pituitary gland and cancerous tissues which suggests a role in tumorigenesis. |
| **Biological function summary** | Securing proper chromosome segregation Securin forms a complex with Separase. By inhibiting Separase Securin ensures that separation of chromatids occurs only at the correct stage of mitosis. This regulatory function is critical for maintaining genomic stability and avoiding aneuploidy which can lead to tumorigenesis. The presence of Securin in dividing cells highlights its role in the cell cycle. |
| **Pathways** | Securin functions are integrated within the cell cycle and apoptosis pathways. In the cell cycle pathway Securin controls the metaphase-anaphase transition. This involves interaction with cyclin-dependent kinases (CDKs) and the anaphase-promoting complex (APC/C). In terms of apoptosis Securin may interact with proteins like Bcl-2 impacting cell survival and death decisions under stress conditions. |

| | |
|---|---|
| **Associated diseases and disorders** | Securin has been associated with cancer particularly pituitary adenomas and colorectal cancer. Its overexpression can lead to chromosomal instability a hallmark of many cancers. Furthermore interactions with other proteins like p53 known for its tumor-suppressing activities suggest a complex interplay in oncogenic processes where disruptions can contribute to tumor development and progression. |

## 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**

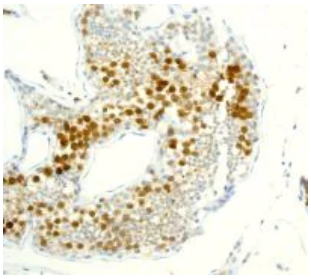
We do not recommend this combination. It is not covered by our product promise.

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.

## 7 product images

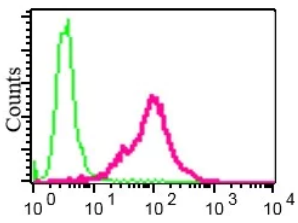


### Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Securin antibody [EPR3240] - BSA and Azide free (ab239892)

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

ab79546 at 1/100 dilution staining Securin in paraffin-embedded human testis tissue by Immunohistochemistry.
This data was developed using the same antibody clone in a different buffer formulation containing Tris glycine, BSA, glycerol, and sodium azide (ab79546).

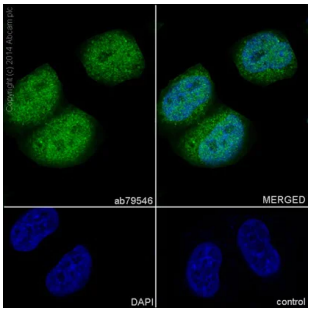
Perform heat mediated antigen retrieval before commencing with IHC staining protocol.




## Flow Cytometry (Intracellular) - Anti-Securin antibody [EPR3240] - BSA and Azide free (ab239892)

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

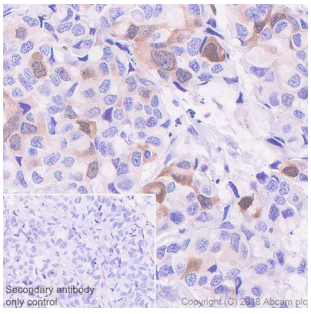
Intracellular flow cytometric analysis of permeabilized Jurkat cells using ab79546 (red) or a rabbit IgG (negative) (green).
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab79546).




## Immunocytochemistry/ Immunofluorescence - Anti-Securin antibody [EPR3240] - BSA and Azide free (ab239892)

Securin Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-Securin antibody

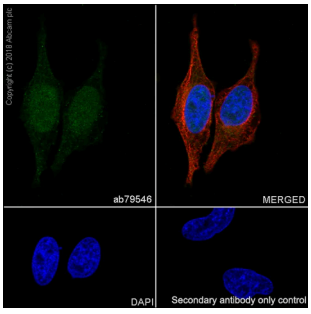
Immunofluorescent analysis of 4% paraformaldehyde-fixed HeLa cells labeling securin with ab79546 at 1/250 dilution. The cells were permeabilised with 0.1% Triton X-100. Anti-rabbit Alexa Fluor® 488 (ab150077) at 1/500 dilution was used as the secondary antibody (green). The nuclear counter stain is DAPI (blue).
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab79546).




## Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Securin antibody [EPR3240] - BSA and Azide free (ab239892)

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

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human breast carcinoma tissue sections labeling Securin with purified ab79546 at 1/200 dilution (1.19 µg/ml). Perform heat mediated antigen retrieval using ab93684 (Tris/EDTA buffer, pH 9.0). ImmunoHistoProbe one step HRP Polymer (ready to use) was used as the secondary antibody. Negative control: PBS instead of the primary antibody. Hematoxylin was used as a counterstain.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab79546)

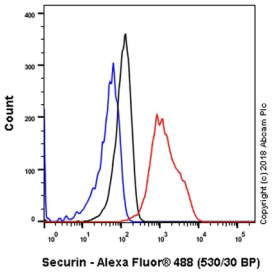



## Immunocytochemistry/ Immunofluorescence - Anti-Securin antibody [EPR3240] - BSA and Azide free (ab239892)

Securin Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-Securin antibody

Immunocytochemistry/ Immunofluorescence analysis of HeLa (Human cervix adenocarcinoma epithelial cell) cells labeling Securin with purified ab79546 at 1/50 dilution (4.74 µg/ml). Cells were fixed in 4% Paraformaldehyde and permeabilized with 0.1% tritonX-100. Cells were counterstained with ab195889 Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) 1/200 (2.5 µg/ml). Goat anti rabbit IgG (Alexa Fluor® 488, ab150077) was used as the secondary antibody at 1/1000 (2 µg/ml) dilution. DAPI (blue) was used as nuclear counterstain. PBS instead of the primary antibody was used as the secondary antibody only control.

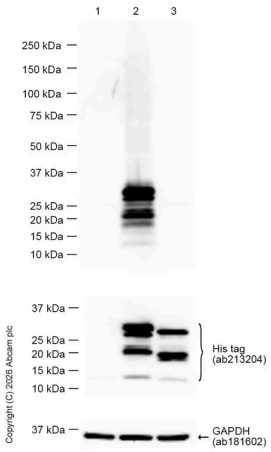
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab79546)




## Flow Cytometry (Intracellular) - Anti-Securin antibody [EPR3240] - BSA and Azide free (ab239892)

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

Intracellular Flow Cytometry analysis of HeLa (Human cervix adenocarcinoma epithelial cell) cells labeling Securin with purified ab79546 at 1/30 dilution (10 µg/ml) (Red). Cells were fixed with 4% Paraformaldehyde and permeabilised with 90% Methanol. A Goat anti rabbit IgG (Alexa Fluor® 488, ab150077) secondary antibody was used at 1/2000. Isotype control - Rabbit monoclonal IgG (Black). Unlabeled control - Cell without incubation with primary antibody and secondary antibody (Blue). This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab79546)




## Western blot - Anti-Securin antibody [EPR3240] - BSA and Azide free (ab239892)

Securin Western blot staining using rabbit Anti-Securin antibody

This data was developed using ab79546, the same antibody clone in a different buffer formulation. Blocking and diluting buffer and concentration: 5% NFDM/TBST.

In Western blot, Anti-GAPDH antibody [EPR16891] - Loading Control (ab181602) staining at 1/1000,000 dilution.

In Western blot, Anti-6X His tag® antibody [EPR20547] - ChIP Grade (ab213204), at 1/5000 dilution.

All lanes:
Western blot - Anti-Securin antibody [EPR3240] (ab79546) at 1/10000 dilution

Lane 1:
293T (human embryonic kidney epithelial cell) + OE- empty whole cell lysate

Lane 2:
293T + OE-Securin whole cell lysate

Lane 3:
293T + OE-Securin-2 whole cell lysate

Secondary

All lanes:
Goat Anti-Rabbit IgG (HRP) with minimal cross-reactivity with human IgG at 1/20000 dilution

Observed band size: 28 kDa, 36 kDa

Exposure time: 3s

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