

Product datasheet

Anti-Securin antibody [EPR3240] α b79546

Recombinant RabMAb

★★★★★ [3 Abreviews](#) [27 References](#) [9 Images](#)

Overview

Product name	Anti-Securin antibody [EPR3240]
Description	Rabbit monoclonal [EPR3240] to Securin
Host species	Rabbit
Tested applications	Suitable for: Flow Cyt (Intra), ICC/IF, WB, IHC-P
Species reactivity	Reacts with: Human
Immunogen	Synthetic peptide within Human Securin aa 100-200 (N terminal). The exact sequence is proprietary. Database link: O95997
Positive control	WB: Daudi, HCT 116, HEK-293T, and HeLa cell lysates. IHC-P: Human testis and breast carcinoma tissues. ICC/IF: HeLa cells. Flow Cyt (intra): HeLa cells. Jurkat cells
General notes	<p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"> - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production <p>For more information see here.</p> <p>Our RabMAb[®] technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb[®] patents.</p> <p>Mouse, Rat: We have preliminary internal testing data to indicate this antibody may not react with these species. Please contact us for more information.</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C. Stable for 12 months at -20°C.
Storage buffer	pH: 7.20 Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Purity	Protein A purified

Clonality	Monoclonal
Clone number	EPR3240
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab79546 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
Flow Cyt (Intra)		1/50. ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.
ICC/IF	★★★★★ (1)	1/50. For unpurified use at 1/100 - 1/250.
WB	★★★★☆ (2)	1/5000 - 1/20000. Detects a band of approximately 28 kDa (predicted molecular weight: 22 kDa).
IHC-P		1/100 - 1/250. Perform heat mediated antigen retrieval before commencing with IHC staining protocol. See IHC antigen retrieval protocols .

Target

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.
Tissue specificity	Expressed at low level in most tissues, except in adult testis, where it is highly expressed. Overexpressed in many patients suffering from pituitary adenomas, primary epithelial neoplasias, and esophageal cancer.
Sequence similarities	Belongs to the securin family.
Developmental stage	Low level during G1 and S phases. Peaks at M phase. During anaphase, it is degraded.
Domain	The N-terminal destruction box (D-box) acts as a recognition signal for degradation via the ubiquitin-proteasome pathway. The TEK-boxes are required for 'Lys-11'-linked ubiquitination and facilitate the transfer of the first ubiquitin and ubiquitin chain nucleation. TEK-boxes may direct a catalytically competent orientation of the UBE2C/UBCH10-ubiquitin thiolester with the acceptor lysine residue.
Post-translational	Phosphorylated at Ser-165 by CDK1 during mitosis.

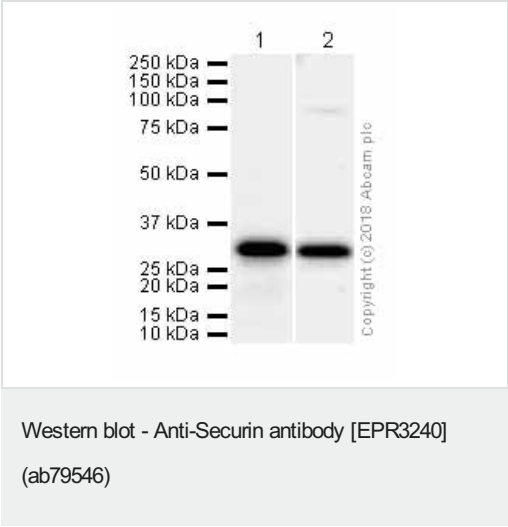
modifications

Phosphorylated in vitro by ds-DNA kinase.
Ubiquitinated through 'Lys-11' linkage of ubiquitin moieties by the anaphase promoting complex (APC) at the onset of anaphase, conducting to its degradation. 'Lys-11'-linked ubiquitination is mediated by the E2 ligase UBE2C/UBCH10.

Cellular localization

Cytoplasm. Nucleus.

Images



All lanes : Anti-Securin antibody [EPR3240] (ab79546) at 1/1000 dilution (Purified)

Lane 1 : Daudi (Human Burkitt's lymphoma lymphoblast) whole cell lysates

Lane 2 : HCT 116 (Human colorectal carcinoma epithelial cell) whole cell lysates

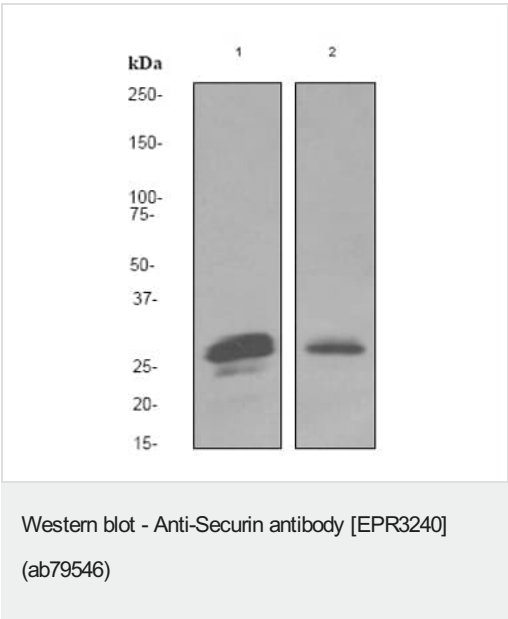
Lysates/proteins at 15 µg per lane.

Secondary

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

Predicted band size: 22 kDa

Observed band size: 28 kDa



All lanes : Anti-Securin antibody [EPR3240] (ab79546) at 1/20000 dilution ((unpurified))

Lane 1 : Daudi (Human Burkitt's lymphoma cell line) cell lysate

Lane 2 : HeLa (Human epithelial cell line from cervix adenocarcinoma) cell lysate

Lysates/proteins at 10 µg per lane.

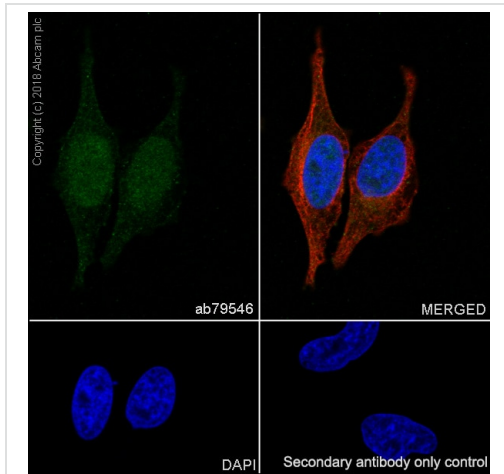
Secondary

All lanes : HRP labelled goat anti-rabbit at 1/2000 dilution

Predicted band size: 22 kDa

Observed band size: 28 kDa

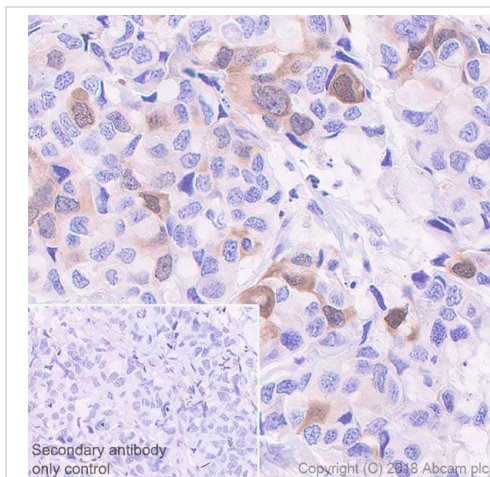
Additional bands at: 25 kDa. We are unsure as to the identity of these extra bands.



Immunocytochemistry/ Immunofluorescence - Anti-Securin antibody [EPR3240] (ab79546)

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.

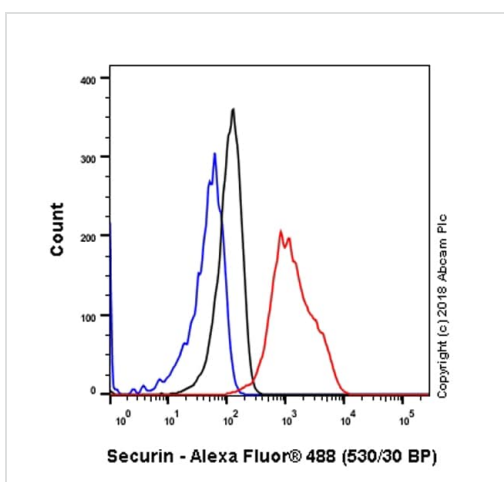
PBS instead of the primary antibody was used as the secondary antibody only control.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Securin antibody [EPR3240] (ab79546)

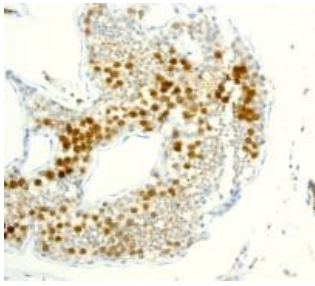
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human breast carcinoma tissue sections labeling Securin with purified ab79546 at 1/200 dilution (1.19 µg/ml). Perform heat mediated antigen retrieval using **ab93684** (Tris/EDTA buffer, pH 9.0). ImmunoHistoProbe one step 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.



Flow Cytometry (Intracellular) - Anti-Securin antibody [EPR3240] (ab79546)

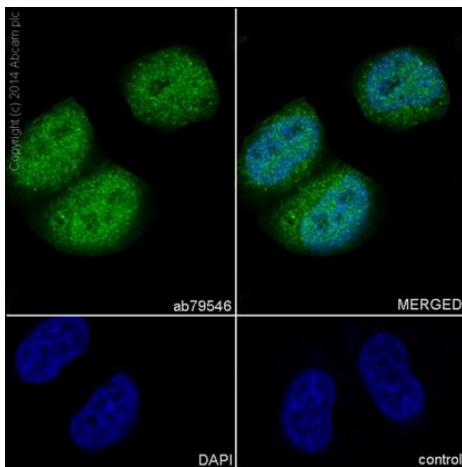
Intracellular Flow Cytometry analysis of HeLa (Human cervix adenocarcinoma epithelial cell) cells labeling Securin with purified ab79546 at 1/30 dilution (10 µg/ml) (Red). Cells were fixed with 4% Paraformaldehyde and permeabilized with 90% Methanol. A Goat anti rabbit IgG (Alexa Fluor® 488, **ab150077**) 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).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Securin antibody [EPR3240] (ab79546)

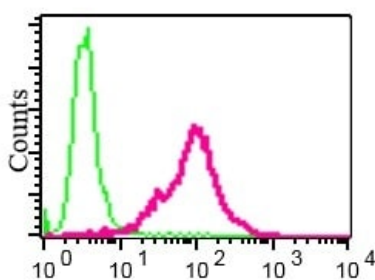
Unpurified ab79546 at 1/100 dilution staining Securin in paraffin-embedded human testis tissue by Immunohistochemistry.

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



Immunocytochemistry/ Immunofluorescence - Anti-Securin antibody [EPR3240] (ab79546)


Immunofluorescent analysis of 4% paraformaldehyde-fixed HeLa (Human epithelial cell line from cervix adenocarcinoma) cells labeling securin with unpurified 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).



Flow Cytometry (Intracellular) - Anti-Securin antibody [EPR3240] (ab79546)

Intracellular flow cytometric analysis of permeabilized Jurkat (Human T cell leukemia cell line from peripheral blood) cells using unpurified ab79546 (red) or a rabbit IgG (negative) (green).

Why choose a recombinant antibody?

 <p>Research with confidence Consistent and reproducible results</p>	 <p>Long-term and scalable supply Recombinant technology</p>
 <p>Success from the first experiment Confirmed specificity</p>	 <p>Ethical standards compliant Animal-free production</p>

Anti-Securin antibody [EPR3240] (ab79546)

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