abcam

Product datasheet

HRP Anti-Securin antibody [EPR3240] ab199239

Recombinant RabMAb

1 References 3 Images

Overview

Product name HRP Anti-Securin antibody [EPR3240]

Description HRP Rabbit monoclonal [EPR3240] to Securin

Host species Rabbit HRP Conjugation

Tested applications Suitable for: WB, IHC-P Species reactivity Reacts with: Human

Immunogen Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.

Positive control WB: Daudi whole cell lysates. IHC-P: FFPE human testis (normal) tissue sections.

General notes 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 production For more information see here.

Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb**® **patents**.

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.

Avoid freeze / thaw cycle. Store In the Dark.

Storage buffer pH: 7.40

Preservative: 0.1% Proclin 300 Solution

Constituents: PBS, 30% Glycerol (glycerin, glycerine), 1% BSA

Purity Protein A purified

Clonality Monoclonal **EPR3240** Clone number

Isotype lgG

Applications

The Abpromise quarantee

Our **Abpromise guarantee** covers the use of ab199239 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
WB		1/5000. Detects a band of approximately 28 kDa (predicted molecular weight: 22 kDa).
IHC-P		1/1000. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

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 modifications

Phosphorylated at Ser-165 by CDK1 during mitosis.

Phosphorylated in vitro by ds-DNA kinase.

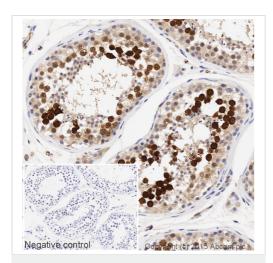
Ubiquitinated through 'Lys-11' linkage of ubiquitin moieties by the anaphase promoting complex (APC) at the onset of anaphase, conducting to its degradation. 'Lys-11'-linked ubiquitination is

mediated by the E2 ligase UBE2C/UBCH10.

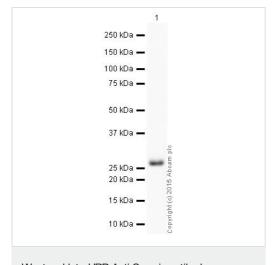
Cellular localization

Cytoplasm. Nucleus.

Images



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - HRP Anti-Securin antibody [EPR3240] (ab199239)



Western blot - HRP Anti-Securin antibody [EPR3240] (ab199239)

IHC image of Securin staining in a section of formalin-fixed paraffinembedded normal human testis tissue*, performed on a Leica BONDTM. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH6, epitope retrieval solution 1) for 20mins. The section was then incubated with ab199239, 1/1000 dilution, for 15 mins at room temperature. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX. The inset negative control image is taken from an identical assay without primary antibody.

For other IHC staining systems (automated and non-automated) customers should optimize variable parameters such as antigen retrieval conditions, primary antibody concentration and antibody incubation times.

*Tissue obtained from the Human Research Tissue Bank, supported by the NIHR Cambridge Biomedical Research Centre

HRP Anti-Securin antibody [EPR3240] (ab199239) at 1/5000 dilution + Daudi (Human Burkitt's lymphoma cell line) Whole Cell Lysate at 10 μg

Developed using the ECL technique.

Performed under reducing conditions.

Predicted band size: 22 kDa **Observed band size:** 28 kDa

Exposure time: 16 minutes

This blot was produced using a 4-12% Bis-tris gel under the MES buffer system. The gel was run at 200V for 35 minutes before being transferred onto a Nitrocellulose membrane at 30V for 70 minutes. The membrane was then blocked for an hour using 3% milk before being incubated with ab199239 overnight at 4°C. Antibody binding was visualised using ECL development solution **ab133406**.



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