Product datasheet

Anti-SAP97 antibody ab3437

★★★★☆ 4 Abreviews  6 References  5 Images

Overview

Product name  Anti-SAP97 antibody
Description  Rabbit polyclonal to SAP97
Host species  Rabbit
Tested applications  Suitable for: ICC/IF, WB
Species reactivity  Reacts with: Mouse, Rat, Human
Immunogen  Synthetic peptide corresponding to Rat SAP97 aa 115-133.
Sequence:

VLPSERISPQVPNEVLGPE

(Peptide available as ab5852)

General notes

Reproducibility is key to advancing scientific discovery and accelerating scientists’ next breakthrough.

Abcam is leading the way with our range of recombinant antibodies, knockout-validated antibodies and knockout cell lines, all of which support improved reproducibility.

We are also planning to innovate the way in which we present recommended applications and species on our product datasheets, so that only applications & species that have been tested in our own labs, our suppliers or by selected trusted collaborators are covered by our Abpromise™ guarantee.

In preparation for this, we have started to update the applications & species that this product is Abpromise guaranteed for.

We are also updating the applications & species that this product has been “predicted to work with,” however this information is not covered by our Abpromise guarantee.

Applications & species from publications and Abreviews that have not been tested in our own labs or in those of our suppliers are not covered by the Abpromise guarantee.

Please check that this product meets your needs before purchasing. If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, as well as customer reviews and Q&As.

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 or -80°C. Avoid freeze / thaw cycle.

Storage buffer: Preservative: 0.05% Sodium azide
Constituent: 99% PBS

Purity: IgG fraction

Clonality: Polyclonal

Isotype: IgG

Applications

Our Abpromise guarantee covers the use of ab3437 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>
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<tbody>
<tr>
<td>ICC/IF</td>
<td>1/20 - 1/200.</td>
<td></td>
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<tr>
<td>WB</td>
<td>★★★★★</td>
<td>1/500 - 1/5000. Detects a band of approximately 140 kDa (predicted molecular weight: 140 kDa).</td>
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Target

Function: Essential multidomain scaffolding protein required for normal development (By similarity). Recruits channels, receptors and signaling molecules to discrete plasma membrane domains in polarized cells. May play a role in adherens junction assembly, signal transduction, cell proliferation, synaptogenesis and lymphocyte activation. Regulates the excitability of cardiac myocytes by modulating the functional expression of Kv4 channels. Functional regulator of Kv1.5 channel.

Tissue specificity: Abundantly expressed in atrial myocardium (at protein level). Expressed in lung fibroblasts, cervical epithelial and B-cells (at protein level). Widely expressed, with isoforms displaying different expression profiles.

Sequence similarities: Belongs to the MAGUK family.
Contains 1 guanylate kinase-like domain.
Contains 1 L27 domain.
Contains 3 PDZ (DHR) domains.
Contains 1 SH3 domain.

Domain: The alternatively spliced domain I3 corresponding to amino acids (636-669) of isoform 4 is an EPB41 binding site mediating association to membranes in polarized and non-polarized cells. The PDZ domains may also mediate association to membranes by binding to EPB41 and ADGRA2 together with the L27 domain that binds CASK and DLG2. The L27 domain may regulate DLG1 self-association. The N-terminal alternatively spliced region is capable of binding several SH3 domains and also moderates the level of protein oligomerization.

Post-translational modifications: Phosphorylated by MAPK12. Phosphorylation of Ser-232 regulates association with GRIN2A.
Cellular localization


Images

Immunocytochemistry/Immunofluorescent analysis of SAP97 (green) showing staining in the cytoplasm and membrane of NIH-3T3 cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with ab3437 in 3% BSA-PBS at a dilution of 1:100 and incubated overnight at 4°C in a humidified chamber. Cells were washed with PBST and incubated with a DyLight-conjugated secondary antibody in PBS at room temperature in the dark. F-actin (red) was stained with a fluorescent red phalloidin and nuclei (blue) were stained with Hoechst or DAPI. Images were taken at a magnification of 60x.

Immunocytochemistry/Immunofluorescent analysis of SAP97 (green) showing staining in the cytoplasm and membrane of C2C12 cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with ab3437 in 3% BSA-PBS at a dilution of 1:100 and incubated overnight at 4°C in a humidified chamber. Cells were washed with PBST and incubated with a DyLight-conjugated secondary antibody in PBS at room temperature in the dark. F-actin (red) was stained with a fluorescent red phalloidin and nuclei (blue) were stained with Hoechst or DAPI. Images were taken at a magnification of 60x.

Immunocytochemistry/Immunofluorescent analysis of SAP97 (green) showing staining in the cytoplasm and membrane of HeLa cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with ab3437 in 3% BSA-PBS at a dilution of 1:100 and incubated overnight at 4°C in a humidified chamber. Cells were washed with PBST and incubated with a DyLight-conjugated secondary antibody in PBS at room temperature in the dark. F-actin (red) was stained with a fluorescent red phalloidin and nuclei (blue) were stained with Hoechst or DAPI. Images were taken at a magnification of 60x.
ICC/IF image of ab3437 stained HeLa cells. The cells were 4% formaldehyde fixed (10 min) and then incubated in 1%BSA / 10% normal goat serum / 0.3M glycine in 0.1% PBS-Tween for 1h to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody (ab3437, 1µg/ml) overnight at +4°C. The secondary antibody (green) was Alexa Fluor® 488 goat anti-rabbit IgG (H+L) used at a 1/1000 dilution for 1h. Alexa Fluor® 594 WGA was used to label plasma membranes (red) at a 1/200 dilution for 1h. DAPI was used to stain the cell nuclei (blue) at a concentration of 1.43µM.

All lanes : Anti-SAP97 antibody (ab3437) at 1/5000 dilution

Lane 1 : C6 cell lysate
Lane 2 : PC12 cell lysate
Lane 3 : Rat brain cell lysate

Lysates/proteins at 25 µg per lane.

Predicted band size: 140 kDa

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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