Product datasheet

Anti-Selenium Binding Protein 1/SBP antibody ab90135

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Overview

Product name: Anti-Selenium Binding Protein 1/SBP antibody
Description: Rabbit polyclonal to Selenium Binding Protein 1/SBP
Host species: Rabbit
Tested applications: Suitable for: WB, ICC/IF, IP, IHC-P
Species reactivity: Reacts with: Mouse, Rat, Human
Immunogen: Synthetic peptide corresponding to Human Selenium Binding Protein 1/SBP aa 1-100 conjugated to keyhole limpet haemocyanin.
(Peptide available as ab90251)
Positive control: This antibody gave a positive signal in the following tissue lysates: Human Liver; Human Colon; Human Spleen; Mouse Liver; Mouse Lung; Rat Liver.
General notes: Previously labelled as Selenium Binding Protein 1.

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: 0.02% Sodium Azide
Constituents: 1% BSA, PBS, pH 7.4
Purity: Immunogen affinity purified
Clonality: Polyclonal
Isotype: IgG

Applications

Our Abpromise guarantee covers the use of ab90135 in the following tested applications.
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.
### Function
Selenium-binding protein which may be involved in the sensing of reactive xenobiotics in the cytoplasm. May be involved in intra-Golgi protein transport.

### Tissue specificity
Highly expressed in liver, lung, colon, prostate, kidney and pancreas. In brain, present both in neurons and glia (at protein level). Down-regulated in lung adenocarcinoma, colorectal carcinoma and ovarian cancer. Two-fold up-regulated in brain and blood from schizophrenia patients.

### Sequence similarities
Belongs to the selenium-binding protein family.

### Post-translational modifications
Phosphorylated.

### Cellular localization

### Images

#### Western blot - Anti-Selenium Binding Protein 1/SBP antibody (ab90135)

- **All lanes**: Anti-Selenium Binding Protein 1/SBP antibody (ab90135) at 1 µg/ml
- **Lane 1**: Human liver tissue lysate - total protein (ab29889)
- **Lane 2**: Human colon tissue lysate - total protein (ab30051)
- **Lane 3**: Human spleen tissue lysate - total protein (ab29699)

Lysates/proteins at 10 µg per lane.

#### Secondary
- **All lanes**: Goat polyclonal to Rabbit IgG - H&L - Pre-Adsorbed (HRP) at 1/3000 dilution

Developed using the ECL technique.

Performed under reducing conditions.

**Predicted band size**: 52 kDa
Observed band size: 52 kDa
Additional bands at: 50 kDa. We are unsure as to the identity of these extra bands.

Exposure time: 1 minute

ICC/IF image of ab90135 stained MCF-7 cells. The cells were 4% PFA 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 (ab90135, 5µg/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. This antibody also gave a positive result in 4% PFA fixed (10 min) HeLa cells at 5µg/ml, and in 100% Methanol fixed (5 min) HeLa, and Hek293 cells at 5µg/ml.

IHC image of ab90135 staining in Normal Human Liver formalin fixed paraffin embedded tissue section, performed on a Leica BondTM system using the standard protocol F. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH6, epitope retrieval solution 1) for 20 mins. The section was then incubated with ab90135, 5µg/ml, for 15 mins at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

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.
All lanes: Anti-Selenium Binding Protein 1/SBP antibody (ab90135) at 1 µg/ml

Lane 1: Liver (Mouse) Tissue Lysate
Lane 2: Lung (Mouse) Tissue Lysate
Lane 3: Liver (Rat) Tissue Lysate

Lysates/proteins at 10 µg per lane.

Secondary
All lanes: Goat Anti-Rabbit IgG H&L (HRP) preadsorbed (ab97080) at 1/5000 dilution

Developed using the ECL technique.

Performed under reducing conditions.

Predicted band size: 52 kDa
Observed band size: 52 kDa

Exposure time: 1 minute

Selenium Binding Protein 1/SBP was immunoprecipitated using 0.5mg Mouse Liver tissue lysate, 5µg of Rabbit polyclonal to Selenium Binding Protein 1/SBP and 50µl of protein G magnetic beads (+). No antibody was added to the control (-).

The antibody was incubated under agitation with Protein G beads for 10min, Mouse Liver tissue lysate lysate diluted in RIPA buffer was added to each sample and incubated for a further 10min under agitation.

Proteins were eluted by addition of 40µl SDS loading buffer and incubated for 10min at 70°C; 10µl of each sample was separated on a SDS PAGE gel, transferred to a nitrocellulose membrane, blocked with 5% BSA and probed with ab90135.

Secondary: Mouse monoclonal [SB62a] Secondary Antibody to
Rabbit IgG light chain (HRP) (ab99697).
Band: 52kDa; Selenium Binding Protein 1/SBP

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