### Overview

<table>
<thead>
<tr>
<th>Product name</th>
<th>Anti-S100A4 antibody</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description</td>
<td>Rabbit polyclonal to S100A4</td>
</tr>
<tr>
<td>Host species</td>
<td>Rabbit</td>
</tr>
<tr>
<td>Specificity</td>
<td>Some optimisation may be required for detection of the target protein due to low levels of endogenous expression in some samples. Please see images below for suitable positive controls.</td>
</tr>
<tr>
<td>Tested applications</td>
<td>Suitable for: IHC-Fr, WB, IHC-P, ICC/IF</td>
</tr>
<tr>
<td>Species reactivity</td>
<td>Reacts with: Mouse, Human</td>
</tr>
<tr>
<td></td>
<td>Predicted to work with: Rat, Cow, Dog</td>
</tr>
<tr>
<td>Immunogen</td>
<td>Synthetic peptide corresponding to Human S100A4 aa 1-100 conjugated to keyhole limpet haemocyanin. (Peptide available as ab41531)</td>
</tr>
<tr>
<td>Positive control</td>
<td>WB: A549, NIH/3T3 whole cell lysates and human lung lysates; ICC/IF: MCF-7 cells.</td>
</tr>
<tr>
<td>General notes</td>
<td>Blocking peptide available ab41531.</td>
</tr>
</tbody>
</table>

### Properties

<table>
<thead>
<tr>
<th>Form</th>
<th>Liquid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Storage instructions</td>
<td>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.</td>
</tr>
<tr>
<td>Storage buffer</td>
<td>Preservative: 0.02% Sodium Azide Constituents: 1% BSA, PBS, pH 7.4</td>
</tr>
<tr>
<td>Purity</td>
<td>Immunogen affinity purified</td>
</tr>
<tr>
<td>Clonality</td>
<td>Polyclonal</td>
</tr>
<tr>
<td>Isotype</td>
<td>IgG</td>
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</table>

### Applications
Our Abpromise guarantee covers the use of **ab41532** 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>
</tr>
</thead>
<tbody>
<tr>
<td>IHC-Fr</td>
<td>⭐⭐⭐⭐⭐</td>
<td>Use at an assay dependent concentration.</td>
</tr>
<tr>
<td>WB</td>
<td>⭐⭐⭐⭐⭐</td>
<td>1/250. Predicted molecular weight: 12 kDa. Can be blocked with Human S100A4 peptide (ab41531).</td>
</tr>
<tr>
<td>IHC-P</td>
<td>⭐⭐⭐⭐⭐</td>
<td>Use at an assay dependent concentration.</td>
</tr>
<tr>
<td>ICC/IF</td>
<td>⭐⭐⭐⭐⭐</td>
<td>Use a concentration of 5 µg/ml.</td>
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</table>

**Target**

**Tissue specificity**
Ubiquitously expressed.

**Sequence similarities**
Belongs to the S-100 family.
Contains 2 EF-hand domains.

**Images**

**All lanes**: Anti-S100A4 antibody (ab41532) at 1/250 dilution

**Lane 1**: Wild-type A549 whole cell lysate
**Lane 2**: S100A4 knockout A549 whole cell lysate
**Lane 3**: A375 whole cell lysate
**Lane 4**: HeLa whole cell lysate

Lysates/proteins at 20 µg per lane.

**Predicted band size**: 12 kDa
**Observed band size**: 12 kDa

**Lanes 1 - 4**: Merged signal (red and green). Green - ab41532 observed at 12 kDa. Red - loading control, ab8245, observed at 37 kDa.

ab41532 was shown to recognize S100A4 in wild-type A549 cells as signal was lost at the expected MW in S100A4 knockout cells. Additional cross-reactive bands were observed in the wild-type and knockout cells. Wild-type and S100A4 knockout samples were subjected to SDS-PAGE. Ab41532 and ab8245 (Mouse anti-GAPDH loading control) were incubated overnight at 4°C at 1/250.
dilution and 1/20000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preabsorbed ab216773 and Goat anti-Mouse IgG H&L (IRDye® 680RD) preabsorbed ab216776 secondary antibodies at 1/20000 dilution for 1 hour at room temperature before imaging.

All lanes: Anti-S100A4 antibody (ab41532) at 1/1000 dilution

Lane 1: A549 (Human lung carcinoma epithelial cell) whole cell lysates
Lane 2: Human lung lysates
Lane 3: NIH/3T3 (Mouse embryonic fibroblast) whole cell lysates

Lysates/proteins at 20 µg per lane.

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

Predicted band size: 12 kDa
Observed band size: 12 kDa

Exposure time: 114 seconds

ICC/IF image of ab41532 stained MCF-7 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 ab41532 at 5µg/ml overnight at +4°C. The secondary antibody (green) was DyLight® 488 goat anti- rabbit (ab96899) IgG (H+L) used at a 1/250 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.
Anti-S100A4 antibody (ab41532) at 1/250 dilution + Recombinant human S100A4 protein (ab83650) at 0.01 µg

**Secondary**
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:** 12 kDa
**Additional bands at:** 37 kDa (possible tagged protein)

**Exposure time:** 20 minutes

The S100A4 tagged recombinant protein has a molecular weight of 36.8 kDa.

ab41532 staining S100A4 in human heart tissue section by Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections). Tissue underwent fixation in formaldehyde, heat mediated antigen retrieval in Citrate buffer pH 6.0 and blocking (5 minutes/peroxidase block then 10 minutes/protein block) for 15 minutes at 20°C. The primary antibody was diluted, 1/2000 and incubated with sample for 45 minutes at 20°C. A HRP conjugated goat polyclonal to rabbit IgG was used undiluted as secondary.
Anti-S100A4 antibody (ab41532) at 1 µg/ml + NIH 3T3 (Mouse embryonic fibroblast cell line) Whole Cell Lysate at 10 µg

**Secondary**
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:** 12 kDa
**Observed band size:** 12 kDa
**Additional bands at:** 120 kDa. We are unsure as to the identity of these extra bands.

**Exposure time:** 20 minutes

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

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