

## Product datasheet

### Anti-S100A9 antibody [2B10] ab105472

★★★★★ [1 Abreviews](#) [22 References](#) [2 Images](#)

#### Overview

<b>Product name</b>	Anti-S100A9 antibody [2B10]
<b>Description</b>	Rat monoclonal [2B10] to S100A9
<b>Host species</b>	Rat
<b>Specificity</b>	Specific for mouse S100-A9 protein that forms a heterodimer with S100-A8 and constitutes 45% of the neutrophil cytosolic protein. Stains neutrophils strongly and monocytes weakly.
<b>Tested applications</b>	<b>Suitable for:</b> IHC-P, ICC/IF
<b>Species reactivity</b>	<b>Reacts with:</b> Mouse, Human
<b>Immunogen</b>	Recombinant full length protein, corresponding to amino acids 1-113 of Mouse S100A9
<b>Positive control</b>	Neutrophils FFPE mouse lung tissue sections RAW246.7 cell line
<b>General notes</b>	<p>Growth Conditions: RPMI 2% + 10% FCS and weaned down to 5% FCS</p> <p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>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, along with publications, customer reviews and Q&amp;As</p>

#### Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Upon delivery aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw cycles.
<b>Storage buffer</b>	<p>Preservative: 0.02% Sodium azide</p> <p>Constituent: 99.98% PBS</p>
<b>Purity</b>	Protein G purified
<b>Clonality</b>	Monoclonal
<b>Clone number</b>	2B10
<b>Isotype</b>	IgG2a

## Applications

### The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab105472 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
IHC-P	★★★★★ (1)	Use a concentration of 10 µg/ml. Perform heat mediated antigen retrieval before commencing with IHC staining protocol.
ICC/IF		Use a concentration of 10 µg/ml.

## Target

### Function

Calcium-binding protein. Has antimicrobial activity towards bacteria and fungi. Important for resistance to invasion by pathogenic bacteria. Up-regulates transcription of genes that are under the control of NF-kappa-B. Plays a role in the development of endotoxic shock in response to bacterial lipopolysaccharide (LPS) (By similarity). Promotes tubulin polymerization when unphosphorylated. Promotes phagocyte migration and infiltration of granulocytes at sites of wounding. Plays a role as a pro-inflammatory mediator in acute and chronic inflammation and up-regulates the release of IL8 and cell-surface expression of ICAM1. Extracellular calprotectin binds to target cells and promotes apoptosis. Antimicrobial and proapoptotic activity is inhibited by zinc ions.

### Tissue specificity

Expressed by macrophages in acutely inflamed tissues and in chronic inflammation. Detected in peripheral blood leukocytes, in neutrophils and granulocytes. Detected at sites of vascular inflammation (at protein level). Also expressed in epithelial cells constitutively or induced during dermatoses.

### Sequence similarities

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

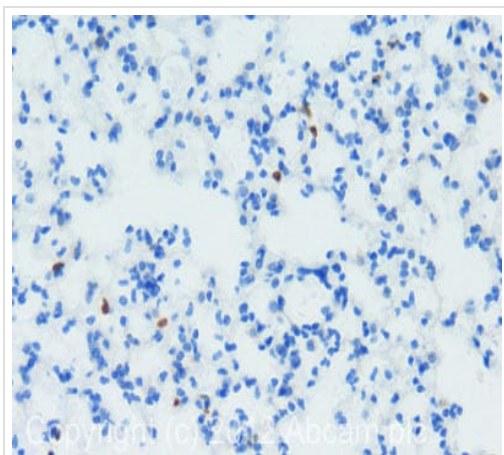
### Post-translational modifications

Phosphorylated. Phosphorylation inhibits activation of tubulin polymerization.

### Cellular localization

Secreted. Cytoplasm. Cytoplasm > cytoskeleton. Cell membrane. Associates with tubulin filaments in activated monocytes. Targeted to the cell surface upon calcium influx. Released from blood leukocytes upon exposure to CSF2/GM-CSF, bacterial lipopolysaccharide (LPS) and during inflammatory processes. Serum levels are high in patients suffering from chronic inflammation.

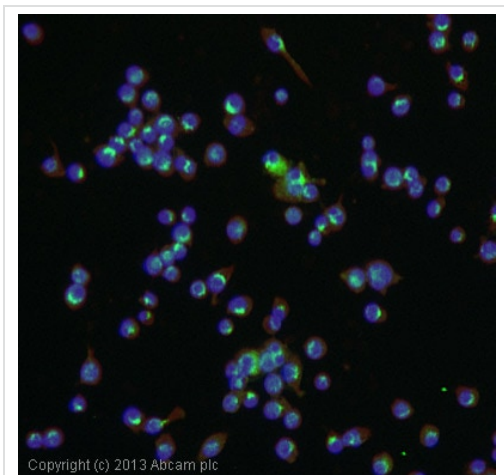
## Images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-S100A9 antibody [2B10] (ab105472)

IHC image of S100A9 staining in mouse lung formalin fixed paraffin embedded tissue section, performed on a Leica Bond™ system using the standard protocol B. 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 ab105472, 10µg/ml, for 15 mins at room temperature. A goat anti-rat biotinylated secondary antibody was used to detect the primary, and visualized using an HRP conjugated ABC 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.



Immunocytochemistry/ Immunofluorescence - Anti-S100A9 antibody [2B10] (ab105472)

ICC/IF image of ab105472 stained RAW246.7 cells. The cells were 100% methanol fixed (5 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 (ab105472, 10µg/ml) overnight at +4°C. The secondary antibody (green) was **ab98386**, DyLight® 488 goat anti-rat 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.

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

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