

## Product datasheet

# Anti-S100A9 antibody [EPR3555] - Low endotoxin, Azide free ab227570

Recombinant RabMAb

9 References 6 Images

### Overview

<b>Product name</b>	Anti-S100A9 antibody [EPR3555] - Low endotoxin, Azide free
<b>Description</b>	Rabbit monoclonal [EPR3555] to S100A9 - Low endotoxin, Azide free
<b>Host species</b>	Rabbit
<b>Tested applications</b>	<b>Suitable for:</b> WB, IHC-P, Flow Cyt, ICC/IF <b>Unsuitable for:</b> IP
<b>Species reactivity</b>	<b>Reacts with:</b> Human
<b>Immunogen</b>	Synthetic peptide (the amino acid sequence is considered to be commercially sensitive) corresponding to Human S100A9 aa 1-100.
<b>Positive control</b>	Breast cancer, Human tonsil, Human spleen and peripheral blood lymphocytes lysates, Human breast carcinoma tissue and Human spleen tissue.IF: DU145 cell lineFlow Cyt: Jurkat cells
<b>General notes</b>	ab227570 is a carrier-free antibody designed for use in antibody labeling, including fluorochromes, metal isotopes, oligonucleotides, enzymes.

Our [Low endotoxin, azide-free formats](#) have low endotoxin level ( $\leq 1$  EU/ml, determined by the LAL assay) and are free from azide, to achieve consistent experimental results in functional assays.

Mouse, Rat: We have preliminary internal testing data to indicate this antibody may not react with these species. Please contact us for more information.

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

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<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Store at +4°C. Do Not Freeze.
<b>Storage buffer</b>	pH: 7.20 Constituent: PBS
<b>Carrier free</b>	Yes
<b>Purity</b>	Protein A purified
<b>Clonality</b>	Monoclonal
<b>Clone number</b>	EPR3555
<b>Isotype</b>	IgG

## Applications

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Our [Abpromise guarantee](#) covers the use of **ab227570** 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		Use at an assay dependent concentration. Predicted molecular weight: 13 kDa.
IHC-P		Use at an assay dependent concentration. Perform heat mediated antigen retrieval via the microwave method before commencing with IHC staining protocol. Boil slides seven times for five minutes each in pH 6 citrate buffer.
Flow Cyt		Use at an assay dependent concentration. <a href="#">ab199376</a> - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.
ICC/IF		Use at an assay dependent concentration.
<b>Application notes</b>		Is unsuitable for IP.

## Target

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<b>Function</b>	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
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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.

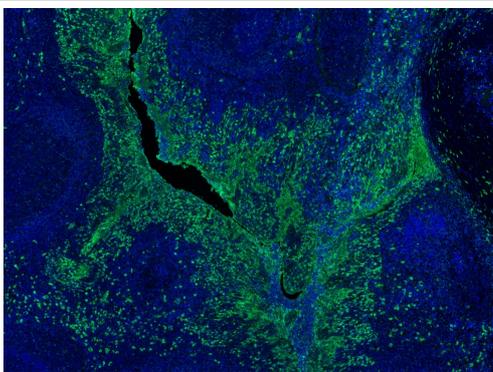
#### Post-translational modifications

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

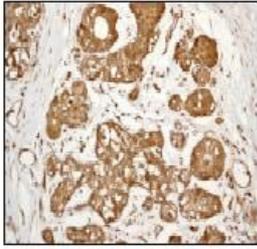


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-S100A9 antibody [EPR3555] - Low endotoxin, Azide free (ab227570)

#### Anti-S100A9 antibody [EPR3555] ([ab92507](#))

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human tonsil tissue labelling S100A9 with [ab92507](#) at a dilution of 1:500. Heat mediated antigen retrieval was performed using AR9 antigen retrieval solution, and microwave treatment for 15 min at 20% power. Anti-Rabbit/Mouse HRP polymer (PerkinElmer Opal Polymer HRP Ms Plus Rb) was used as secondary antibody. Opal tyramide amplification was performed using Opal 520 fluorophore. Counterstained with DAPI stain. Image scanned with Vectra 3.0 and analyzed via Phenochart software.

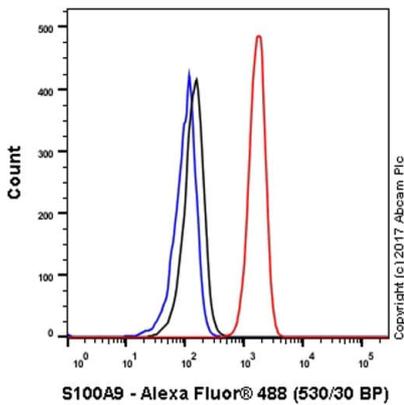
This image was courteously provided by Dr. Houssein Abdul Sater, Georgia Cancer Center.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-S100A9 antibody [EPR3555] - Low endotoxin, Azide free (ab227570)

This IHC data was generated using the same anti-S100A9 antibody clone, EPR3555, in a different buffer formulation (cat# [ab92507](#)).

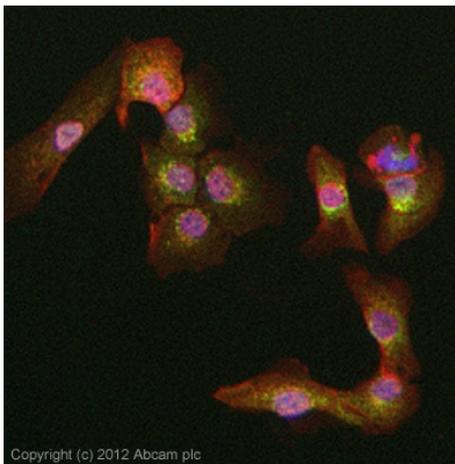
[ab92507](#), at a 1/250 dilution, staining S100A9 in paraffin embedded Human breast carcinoma tissue by Immunohistochemistry.



Flow Cytometry - Anti-S100A9 antibody [EPR3555] - Low endotoxin, Azide free (ab227570)

Flow cytometry analysis of Jurkat (Human T cell leukemia T lymphocyte) cells labeling S100A9 (red) with purified [ab92507](#) at a 1/200 dilution (10ug/mL). Cells were fixed with 80% methanol and permeabilized with 0.1% Tween-20. A goat anti rabbit IgG (Alexa Fluor® 488) ([ab150077](#)) was used as the secondary antibody at a 1/2000 dilution. Black - Rabbit monoclonal IgG (Black) ([ab172730](#)). Blue (unlabeled control) - Cell without incubation with primary antibody and secondary antibody (Blue).

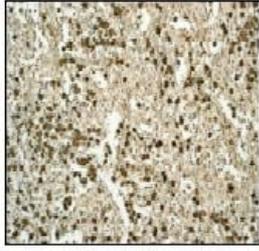
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide ([ab92507](#)).



Immunocytochemistry/ Immunofluorescence - Anti-S100A9 antibody [EPR3555] - Low endotoxin, Azide free (ab227570)

ICC/IF image of [ab92507](#) stained DU145 cells. The cells were 4% paraformaldehyde 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 ([ab92507](#), 1/200) overnight at +4°C. The secondary antibody (green) was [ab96899](#), DyLight® 488 goat anti-rabbit IgM (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.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide ([ab92507](#)).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-S100A9 antibody [EPR3555] - Low endotoxin, Azide free (ab227570)

This IHC data was generated using the same anti-S100A9 antibody clone, EPR3555, in a different buffer formulation (cat# [ab92507](#)). [ab92507](#), at a 1/250 dilution, staining S100A9 in paraffin embedded Human spleen tissue by Immunohistochemistry.

### Why choose a recombinant antibody?



Anti-S100A9 antibody [EPR3555] - Low endotoxin, Azide free (ab227570)

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

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