

## Product datasheet

# Anti-Prosurfactant Protein C antibody [EPR19839-8] ab270521

Recombinant RabMAb

6 Images

### Overview

<b>Product name</b>	Anti-Prosurfactant Protein C antibody [EPR19839-8]
<b>Description</b>	Rabbit monoclonal [EPR19839-8] to Prosurfactant Protein C
<b>Host species</b>	Rabbit
<b>Tested applications</b>	<b>Suitable for:</b> IHC-P, WB, IHC-Fr, IP
<b>Species reactivity</b>	<b>Reacts with:</b> Mouse
<b>Immunogen</b>	Synthetic peptide within Mouse Prosurfactant Protein C aa 50-150. The exact sequence is proprietary. Database link: <a href="#">P21841</a>
<b>Positive control</b>	WB: Mouse lung tissue lysate. IHC-P: Mouse lung tissue. IHC-Fr: Mouse lung tissue. IP: Mouse lung tissue lysate.
<b>General notes</b>	<p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"> <li>- High batch-to-batch consistency and reproducibility</li> <li>- Improved sensitivity and specificity</li> <li>- Long-term security of supply</li> <li>- Animal-free production</li> </ul> <p>For more information <a href="#">see here</a>.</p> <p>Our RabMAb<sup>®</sup> technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to <a href="#">RabMAb<sup>®</sup> patents</a>.</p> <p>Reproducibility is key to advancing scientific discovery and accelerating scientists' next breakthrough.</p> <p>Abcam is leading the way with our range of recombinant antibodies, knockout-validated antibodies and knockout cell lines, all of which support improved reproducibility.</p> <p>We are also planning to innovate the way in which we present recommended applications and species on our product datasheets, so that only applications &amp; species that have been tested in our own labs, our suppliers or by selected trusted collaborators are covered by our Abpromise™ guarantee.</p> <p>In preparation for this, we have started to update the applications &amp; species that this product is Abpromise guaranteed for.</p> <p>We are also updating the applications &amp; species that this product has been "predicted to work</p>

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 short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
<b>Storage buffer</b>	pH: 7.2 Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
<b>Purity</b>	Protein A purified
<b>Clonality</b>	Monoclonal
<b>Clone number</b>	EPR19839-8
<b>Isotype</b>	IgG

## Applications

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Our [Abpromise guarantee](#) covers the use of **ab270521** 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		1/2000. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.
WB		1/1000. Detects a band of approximately 21 kDa (predicted molecular weight: 21 kDa).
IHC-Fr		1/100. Heat mediated antigen retrieval using sodium citrate buffer (10mM citrate pH 6.0 + 0.05% Tween-20).
IP		1/30.

## Target

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<b>Function</b>	Pulmonary surfactant associated proteins promote alveolar stability by lowering the surface tension at the air-liquid interface in the peripheral air spaces.
<b>Involvement in disease</b>	Defects in SFTPC are the cause of pulmonary surfactant metabolism dysfunction type 2 (SMDP2) [MIM:610913]; also called pulmonary alveolar proteinosis due to surfactant protein C deficiency. A rare disease associated with progressive respiratory insufficiency and lung disease with a

variable clinical course, due to impaired surfactant homeostasis. It is characterized by alveolar filling with floccular material that stains positive using the periodic acid-Schiff method and is derived from surfactant phospholipids and protein components. Excessive lipoproteins accumulation in the alveoli results in severe respiratory distress.

Genetic variations in SFTPC are a cause of susceptibility to respiratory distress syndrome in premature infants (RDS) [MIM:267450]; also known as RDS in prematurity. RDS is a lung disease affecting usually premature newborn infants. It is characterized by deficient gas exchange, diffuse atelectasis, high-permeability lung edema and fibrin-rich alveolar deposits called 'hyaline membranes'.

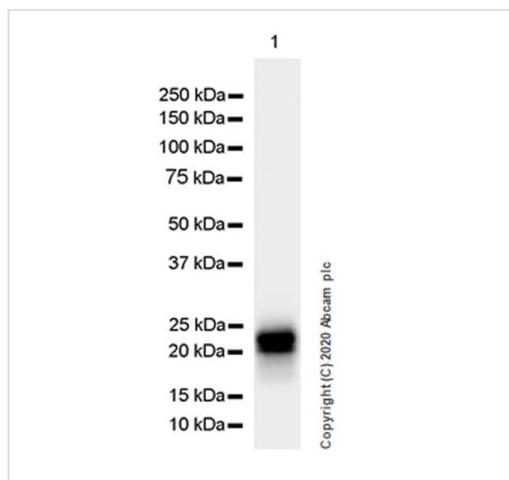
### Sequence similarities

Contains 1 BRICHOS domain.

### Cellular localization

Secreted > extracellular space > surface film.

## Images



Western blot - Anti-Prosurfactant Protein C antibody [EPR19839-8] (ab270521)

Anti-Prosurfactant Protein C antibody [EPR19839-8] (ab270521) at 1/1000 dilution + Mouse lung tissue lysate at 10 µg

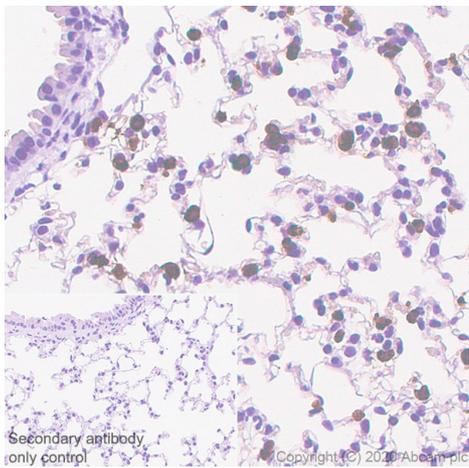
### Secondary

Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated (ab97051) at 1/100000 dilution

**Predicted band size:** 21 kDa

**Observed band size:** 21 kDa

Blocking and diluting buffer and concentration: This target has a precursor which contains an exceedingly hydrophobic region of 34 amino acids that comprises most of the mature Spftc, and a unique poly-valine domain. The staining pattern of our antibody is similar with published paper (PMID: 20378731 and PMID: 22461427). 15 seconds Exposure time:

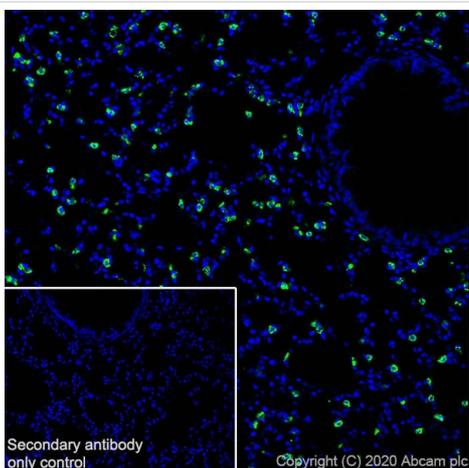


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Prosurfactant Protein C antibody [EPR19839-8] (ab270521)

Immunohistochemical analysis of paraffin-embedded Mouse lung tissue labeling Prosurfactant Protein C with ab270521 at 1/2000 dilution followed by a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (ab209101). Positive staining on Type II alveolar cells in mouse lung. The section was incubated with ab270521 for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (ab209101).

Heat mediated antigen retrieval with Citrate buffer (pH 6.0, epitope retrieval solution 1) for 20 mins.

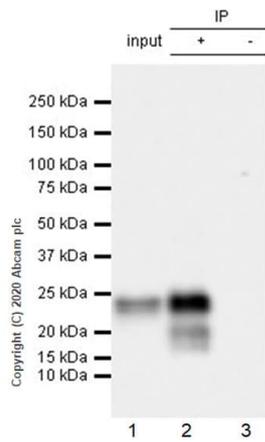


Immunohistochemistry (Frozen sections) - Anti-Prosurfactant Protein C antibody [EPR19839-8] (ab270521)

Immunohistochemical analysis of 4% PFA-fixed, 0.2% Triton X-100 permeabilized frozen Mouse lung tissue labeling Prosurfactant Protein C with ab270521 at 1/100 dilution followed by ab150077 AlexaFluor®488 Goat anti-Rabbit secondary at 1/1000 dilution (Green). Positive staining on mouse lung is observed. The nuclear counterstain was DAPI (Blue).

Secondary antibody control: Secondary antibody is ab150077 AlexaFluor®488 Goat anti-Rabbit secondary at 1/1000 dilution.

Heat mediated antigen retrieval using sodium citrate buffer (10mM citrate pH 6.0 + 0.05% Tween-20).



Immunoprecipitation - Anti-Prosurfactant Protein C antibody [EPR19839-8] (ab270521)

Prosurfactant Protein C was immunoprecipitated from 0.35 mg Mouse lung tissue lysate 1 with ab270521 at 1/30 dilution. Western blot was performed on the immunoprecipitate using ab270521 at 1/1000 dilution. VeriBlot for IP Detection Reagent (HRP) (ab131366) was used at 1/5000 dilution.

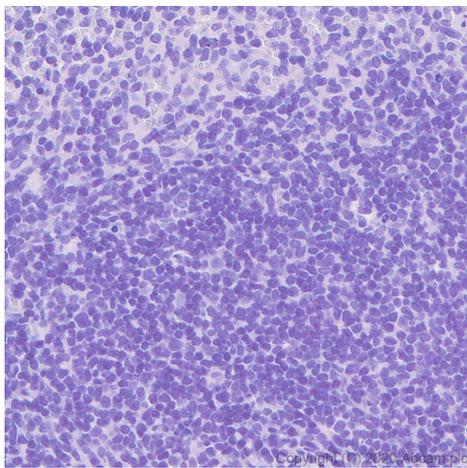
Lane 1: Mouse lung tissue lysate 10 ug.

Lane 2: ab270521 IP in Mouse lung tissue lysate.

Lane 3: Rabbit monoclonal IgG (ab172730) instead of ab270521 in mouse lung tissue lysate.

Blocking and dilution buffer and concentration: 5% NFDN/TBST.

Exposure time: 6 seconds.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Prosurfactant Protein C antibody [EPR19839-8] (ab270521)

Immunohistochemical analysis of paraffin-embedded Mouse spleen tissue labeling Prosurfactant Protein C with ab270521 at 1/2000 dilution followed by a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (ab209101). The Pulmonary surfactant-associated protein C is a peptide secreted by the alveolar type II pneumocytes of the lung (PMID: 16769199). **Negative control:** No staining on mouse spleen. The section was incubated with ab270521 for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND<sup>®</sup> RX instrument. Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (ab209101).

Heat mediated antigen retrieval with Citrate buffer (pH 6.0, epitope retrieval solution 1) for 20 mins.

### Why choose a recombinant antibody?



**Research with confidence**  
Consistent and reproducible results



**Long-term and scalable supply**  
Recombinant technology



**Success from the first experiment**  
Confirmed specificity



**Ethical standards compliant**  
Animal-free production

Anti-Prosurfactant Protein C antibody [EPR19839-8]  
(ab270521)

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

### Our Abpromise to you: Quality guaranteed and expert technical support

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- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

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