

Product datasheet

Anti-Prosurfactant Protein C antibody ab90716

★★★★★ 11 Abreviews 50 References 5 Images

Overview

Product name	Anti-Prosurfactant Protein C antibody
Description	Rabbit polyclonal to Prosurfactant Protein C
Host species	Rabbit
Tested applications	Suitable for: ICC/IF, IHC-P, WB, IP
Species reactivity	Reacts with: Mouse, Human Predicted to work with: Rhesus monkey 
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	IHC-P: Normal human lung. ICC: A549 cells. IP: Mouse Lung tissue. WB: Mouse and human Lung Tissue Lysate.
General notes	<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&As</p>

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	pH: 7.40 Preservative: 0.02% Sodium azide Constituent: PBS Batches of this product that have a concentration < 1mg/ml may have BSA added as a stabilising agent. If you would like information about the formulation of a specific lot, please contact our scientific support team who will be happy to help.
Purity	Immunogen affinity purified
Clonality	Polyclonal

Isotype

IgG

Applications

The Abpromise guarantee

Our [Abpromise guarantee](#) covers the use of ab90716 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
ICC/IF	★★★★★ (2)	Use a concentration of 5 µg/ml.
IHC-P	★★★★★ (4)	Use a concentration of 1 µg/ml.
WB	★★★☆☆ (1)	Use a concentration of 1 µg/ml. Detects a band of approximately 25 kDa (predicted molecular weight: 21 kDa).
IP		Use a concentration of 5 µg/ml.

Target

Function

Pulmonary surfactant associated proteins promote alveolar stability by lowering the surface tension at the air-liquid interface in the peripheral air spaces.

Involvement in disease

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'.

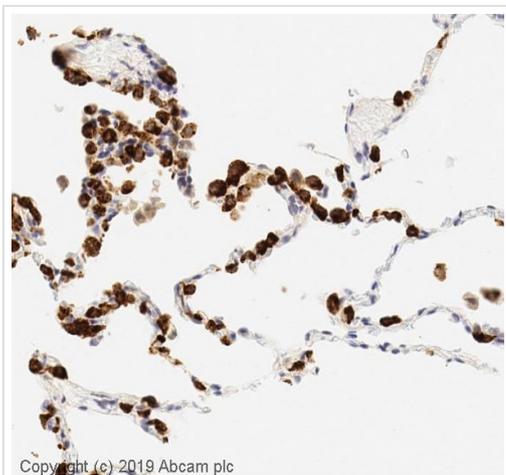
Sequence similarities

Contains 1 BRICHOS domain.

Cellular localization

Secreted > extracellular space > surface film.

Images

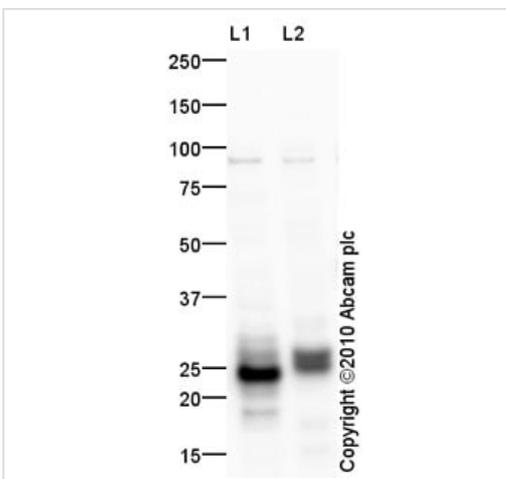


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Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Prosurfactant Protein C antibody (ab90716)

IHC image of Prosurfactant Protein C staining in a section of formalin-fixed paraffin-embedded normal human lung performed on a Leica BOND™ 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 20mins. The section was then incubated with ab90716, 1ug/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.



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Western blot - Anti-Prosurfactant Protein C antibody (ab90716)

All lanes : Anti-Prosurfactant Protein C antibody (ab90716) at 1 µg/ml

Lane 1 : Lung (Human) Tissue Lysate

Lane 2 : Lung (Mouse) 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: 21 kDa

Observed band size: 25,28 kDa

Additional bands at: 90 kDa. We are unsure as to the identity of these extra bands.

Exposure time: 3 minutes

All lanes : Anti-Prosurfactant Protein C antibody (ab90716) at 1 µg/ml

Lane 1 : Lung (Human) Tissue Lysate

Lysates/proteins at 10 µg per lane.

Secondary

All lanes : Goat Anti-Rabbit IgG H&L (HRP) preadsorbed at 1/50000 dilution

Developed using the ECL technique.

Performed under reducing conditions.

Predicted band size: 21 kDa

Observed band size: 25,28 kDa

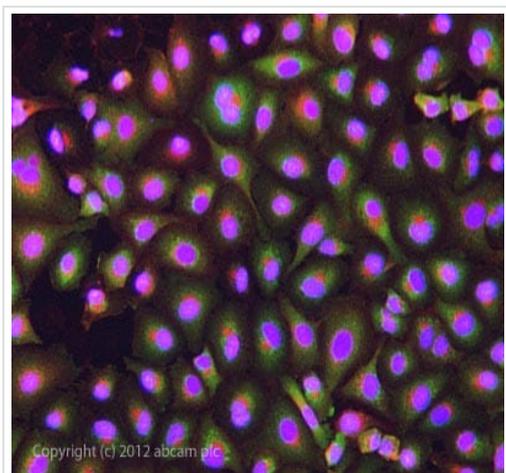
Additional bands at: 45 kDa (possible non-specific binding)

Exposure time: 2 minutes

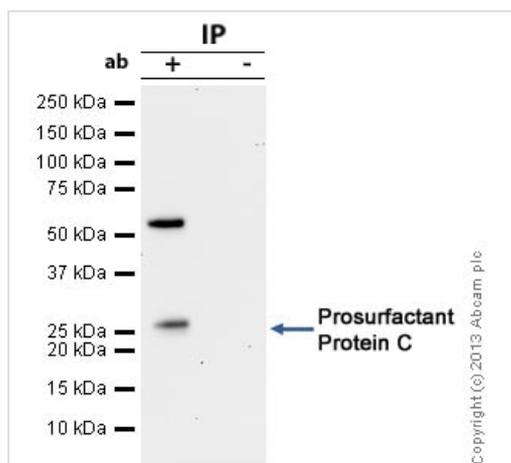
ab90716 stained A549 cells. The cells were 4% formaldehyde fixed (10 min) and then incubated in 1%BSA / 10% normal goat serum / 0.3M glycine in 0.1% PBS-Tween for 1h to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody ab90716 at 5µg/ml overnight at +4°C. The secondary antibody (green) was DyLight® 488 goat anti-rabbit (ab96899) IgG (H+L) used at a 1/1000 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.



Western blot - Anti-Prosurfactant Protein C antibody (ab90716)



Immunocytochemistry/ Immunofluorescence - Anti-Prosurfactant Protein C antibody (ab90716)



Immunoprecipitation - Anti-Prosurfactant Protein C antibody (ab90716)

Prosurfactant Protein C was immunoprecipitated using 0.5mg Mouse Lung tissue, 5µg of Rabbit polyclonal to Prosurfactant Protein C 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 Lung tissue 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 ab90716.

Secondary: Mouse monoclonal [SB62a] Secondary Antibody to Rabbit IgG light chain (HRP) (ab99697).

Band: 23kDa; Prosurfactant Protein C

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

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