

Anti-Surfactant protein D/SP-D antibody [EPR21928-209] ab220423

Recombinant RabMAb

7 Images

Overview

Product name	Anti-Surfactant protein D/SP-D antibody [EPR21928-209]
Description	Rabbit monoclonal [EPR21928-209] to Surfactant protein D/SP-D
Host species	Rabbit
Tested applications	Suitable for: WB, IHC-P, IP, mIHC
Species reactivity	Reacts with: Human, Recombinant fragment
Immunogen	Recombinant fragment. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: Human Surfactant protein D/SP-D recombinant protein (aa 21-375); Human lung lysate. IHC-P: Human lung and skeletal muscle tissue. IP: Human fetal lung lysate. mIHC-P: Human lung tissue.
General notes	<p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"> - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production <p>For more information see here.</p> <p>Our RabMAb[®] technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb[®] patents.</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 long term. Avoid freeze / thaw cycle.
Storage buffer	<p>pH: 7.2</p> <p>Preservative: 0.01% Sodium azide</p> <p>Constituents: PBS, 0.05% BSA, 40% Glycerol (glycerin, glycerine)</p>
Purity	Protein A purified
Clonality	Monoclonal

Clone number	EPR21928-209
Isotype	IgG

Applications

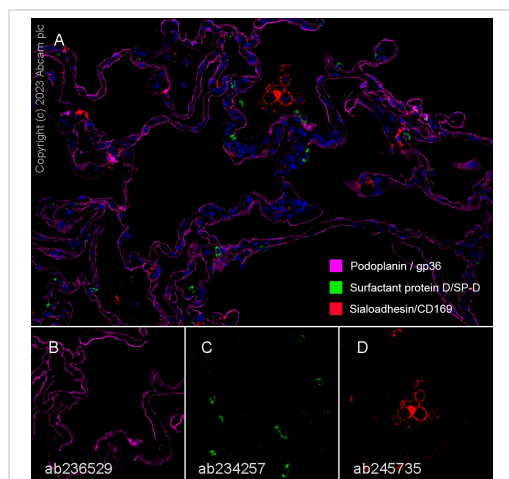
The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab220423 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		1/1000. Detects a band of approximately 43 kDa (predicted molecular weight: 38 kDa).
IHC-P		1/500. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.
IP		1/30.
mlHC		Use at an assay dependent concentration.

Target

Function	Contributes to the lung's defense against inhaled microorganisms. May participate in the extracellular reorganization or turnover of pulmonary surfactant. Binds strongly maltose residues and to a lesser extent other alpha-glucosyl moieties.
Sequence similarities	Belongs to the SFTPD family. Contains 1 C-type lectin domain. Contains 1 collagen-like domain.
Post-translational modifications	The N-terminus is blocked. Hydroxylation on proline residues within the sequence motif, GXPG, is most likely to be 4-hydroxy as this fits the requirement for 4-hydroxylation in vertebrates.
Cellular localization	Secreted > extracellular space > extracellular matrix. Secreted > extracellular space > surface film.

Images



Multiplex immunohistochemistry - Anti-Surfactant protein D/SP-D antibody [EPR21928-209] (ab220423)

Fluorescence multiplex immunohistochemical analysis of formalin/PFA-fixed paraffin-embedded Human lung tissue.

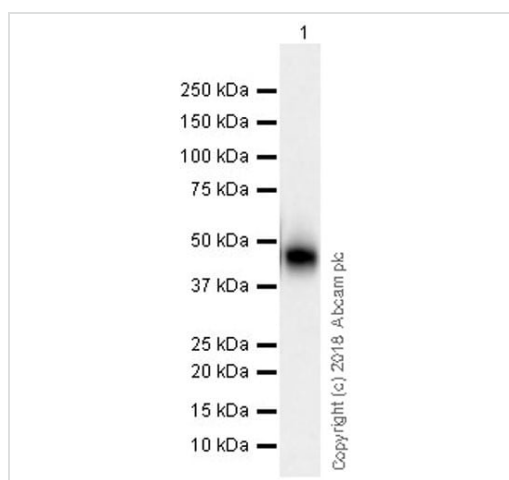
Panel A: Merged staining of anti-Podoplanin / gp36 (magenta; Opal™690), anti-Surfactant protein D/SP-D (green; Opal™520) and anti-Sialoadhesin/CD169 (red; Opal™570) on human lung.

Panel B: Anti-Podoplanin / gp36 stained on alveolar type I cells.

Panel C: Anti-Surfactant protein D/SP-D stained on alveolar type II cells.

Panel D: Anti-Sialoadhesin/CD169 stained on macrophages.

The section was incubated in three rounds of staining: in the order of **ab236529** and **ab234257** for 30 mins, then **ab245735** for 10 mins at room temperature. Each round was followed by a separate fluorescent tyramide signal amplification system. The immunostaining was performed on a Leica Biosystems BOND® RX instrument with an Opal™ 4-color kit. Image acquisition was performed with Leica SP8 confocal microscope. Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution 2) for 20 mins. Counterstained with DAPI.



Western blot - Anti-Surfactant protein D/SP-D antibody [EPR21928-209] (ab220423)

Anti-Surfactant protein D/SP-D antibody [EPR21928-209] (ab220423) at 1/1000 dilution + Human lung lysate at 20 µg

Secondary

Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/20000 dilution

Developed using the ECL technique.

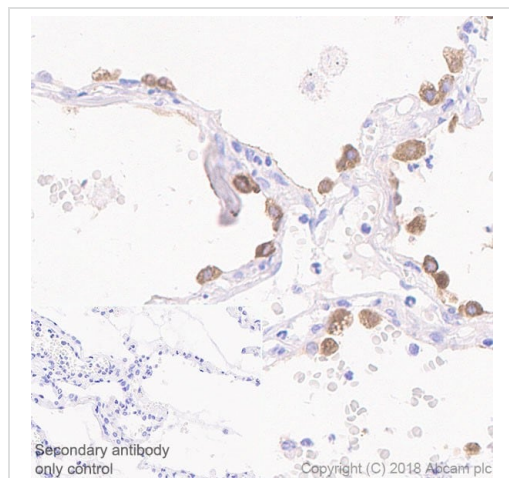
Predicted band size: 38 kDa

Observed band size: 43 kDa

Exposure time: 3 minutes

Blocking/Dilution buffer: 5% NFDM/TBST.

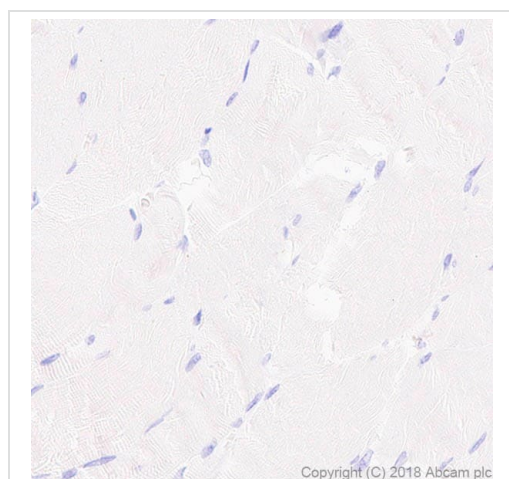
The molecular mass observed is consistent with what has been described in the literature (PMID: 9751757).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Surfactant protein D/SP-D antibody [EPR21928-209] (ab220423)

Immunohistochemical analysis of paraffin-embedded human lung tissue labeling Surfactant protein D/SP-D with ab220423 at 1/500 dilution, followed by a ready to use Goat Anti-Rabbit IgG H&L (HRP). Cytoplasmic staining on alveolar type II cells of human lung (PMID: 10820266) is observed. Counter stained with Hematoxylin. Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is a ready to use Goat Anti-Rabbit IgG H&L (HRP).

Perform heat mediated antigen retrieval using [ab93684](#) (Tris/EDTA buffer, pH 9.0).

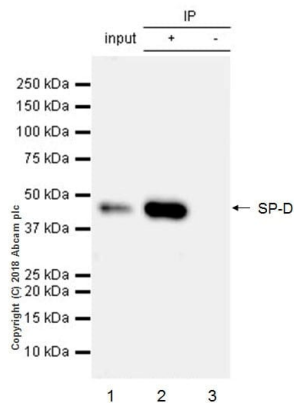


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Surfactant protein D/SP-D antibody [EPR21928-209] (ab220423)

Negative control: No staining on human skeletal muscle (PMID: 10640760) is observed

Immunohistochemical analysis of paraffin-embedded human skeletal muscle tissue labeling Surfactant protein D/SP-D with ab220423 at 1/5000 dilution, followed by a ready to use Goat Anti-Rabbit IgG H&L (HRP). Counter stained with Hematoxylin.

Perform heat mediated antigen retrieval using [ab93684](#) (Tris/EDTA buffer, pH 9.0).



Immunoprecipitation - Anti-Surfactant protein D/SP-D antibody [EPR21928-209] (ab220423)

Surfactant protein D/SP-D was immunoprecipitated from 0.35 mg human fetal lung lysate with ab220423 at 1/30 dilution. Western blot was performed from the immunoprecipitate using ab220423 at 1/1000 dilution. VeriBlot for IP Detection Reagent (HRP) ([ab131366](#)), was used for detection at 1/5000 dilution.

Lane 1: Human fetal lung lysate 10 µg (Input).

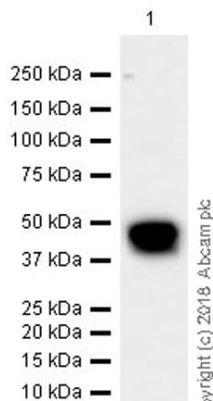
Lane 2: ab220423 IP in human fetal lung lysate.

Lane 3: Rabbit monoclonal IgG ([ab172730](#)) instead of ab220423 in human fetal lung lysate.

Blocking/Dilution buffer and concentration: 5% NFDm/TBST.

Exposure time: 3 minutes.

The molecular mass observed is consistent with what has been described in the literature (PMID: 9751757).



Western blot - Anti-Surfactant protein D/SP-D antibody [EPR21928-209] (ab220423)

Anti-Surfactant protein D/SP-D antibody [EPR21928-209]

(ab220423) at 1/1000 dilution + Human Surfactant protein D/SP-D recombinant protein (aa 21-375), 10 ng

Secondary

Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/100000 dilution

Predicted band size: 38 kDa

Exposure time: 32 seconds

Blocking/Dilution buffer: 5% NFDm/TBST.

Recombinant protein was obtained from a mammalian expression system.

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-Surfactant protein D/SP-D antibody [EPR21928-209] (ab220423)

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

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