# abcam

## Product datasheet

## Anti-Podoplanin antibody ab109059

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Overview

Product name Anti-Podoplanin antibody

**Description** Rabbit polyclonal to Podoplanin

Host species Rabbit

**Specificity** This antibody is designed to detect podoplanin, which is also referred to as gp38 (mouse and rat)

and gp36 (human).

**Tested applications** Suitable for: IHC-P

Unsuitable for: ICC/IF

Species reactivity Reacts with: Mouse, Human

**Predicted to work with:** Chinese hamster

**Immunogen** Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.

**Positive control** IHC-P: Human and Mouse normal lung.

General notes

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.

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

**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 ab109059 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		Use a concentration of 0.5 $\mu$ g/ml. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

**Application notes** Is unsuitable for ICC/IF.

## **Target**

**Function** 

May be involved in cell migration and/or actin cytoskeleton organization. When expressed in keratinocytes, induces changes in cell morphology with transfected cells showing an elongated shape, numerous membrane protrusions, major reorganization of the actin cytoskeleton, increased motility and decreased cell adhesion. Required for normal lung cell proliferation and alveolus formation at birth. Induces platelet aggregation. Does not have any effect on folic acid or amino acid transport. Does not function as a water channel or as a regulator of aquaporin-type water channels.

Tissue specificity

Highly expressed in placenta, lung, skeletal muscle and brain. Weakly expressed in brain, kidney and liver. In placenta, expressed on the apical plasma membrane of endothelium. In lung, expressed in alveolar epithelium. Up-regulated in colorectal tumors and expressed in 25% of early oral squamous cell carcinomas.

Sequence similarities

Belongs to the podoplanin family.

Post-translational modifications

Extensively O-glycosylated. Contains sialic acid residues. O-glycosylation is necessary for platelet aggregation activity.

The N-terminus is blocked.

Cellular localization

Membrane. Cell projection > filopodium membrane. Cell projection > lamellipodium membrane. Cell projection > microvillus membrane. Cell projection > ruffle membrane. Localized to actin-rich

microvilli and plasma membrane projections such as filopodia, lamellipodia and ruffles.

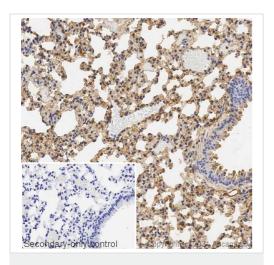
#### **Images**



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Rabbit polyclonal to Podoplanin (ab109059)

IHC image of Podoplanin 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 ab109059, 5ug/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. The inset secondary-only control image is taken from an identical assay without primary antibody.

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.



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Rabbit polyclonal to Podoplanin (ab109059)

IHC image of Podoplanin staining in a section of formalin-fixed paraffin-embedded normal mouse 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 ab109059, 5ug/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. The inset secondary-only control image is taken from an identical assay without primary antibody.

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- Extensive multi-media technical resources to help you
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