abcam

Product datasheet

Anti-Periostin antibody ab79946

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Overview

Product name	Anti-Periostin antibody
Description	Rabbit polyclonal to Periostin
Host species	Rabbit
Tested applications	**Suitable for:** IHC-P, WB, ICC/IF
Species reactivity	**Reacts with:** Mouse, Human **Predicted to work with:** Chicken, Cow
Immunogen	Synthetic peptide conjugated to KLH derived from within residues 250 - 350 of Human Periostin .Read Abcam's proprietary immunogen policy(Peptide available as ab90847.)
Positive control	This antibody gave a positive signal in WB in Human breast tumour tissue lysate. This antibody gave a positive result in IHC in the following FFPE tissue: Human breast fibroadenocarcinoma.

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	Preservative: 0.02% Sodium Azide Constituents: 1% BSA, PBS, pH 7.4
Purity	Immunogen affinity purified
Clonality	Polyclonal
Isotype	IgG

Applications

Our Abpromise guarantee covers the use of **ab79946** 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 0.1 µg/ml.

Application	Abreviews	Notes
WB		Use a concentration of 1 µg/ml. Detects a band of approximately 80, 86, 86, 93 kDa (predicted molecular weight: 93 kDa). This antibody was raised against an immunogen that is predicted to recognize isoforms 1,2,3 & 4 of Human Periostin.
ICC/IF		Use a concentration of 1 µg/ml.

Target

Function
Binds to heparin. Induces cell attachment and spreading and plays a role in cell adhesion. May play a role in extracellular matrix mineralization.

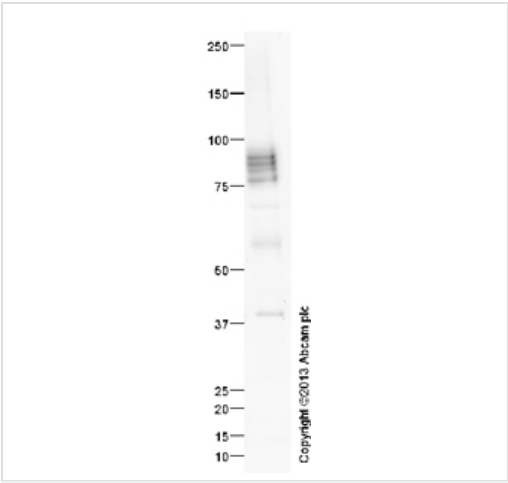
Tissue specificity
Widely expressed with highest levels in aorta, stomach, lower gastrointestinal tract, placenta, uterus and breast. Up-regulated in epithelial ovarian tumors. Not expressed in normal ovaries. Also highly expressed at the tumor periphery of lung carcinoma tissue but not within the tumor. Overexpressed in breast cancers.

Sequence similarities
Contains 1 EMI domain.
Contains 4 FAS1 domains.

Post-translational modifications
Gamma-carboxyglutamate residues are formed by vitamin K dependent carboxylation. These residues are essential for the binding of calcium.

Cellular localization
Secreted > extracellular space > extracellular matrix.

Images



Western blot - Anti-Periostin antibody (ab79946)

Anti-Periostin antibody (ab79946) at 1 µg/ml (blocked with 3% milk) + Breast (Human) Cytoplasmic Lysate - tumor tissue (ab30085) at 10 µg

Secondary
Goat polyclonal to Rabbit IgG - H&L - Pre-Adsorbed (HRP) at 1/10000 dilution

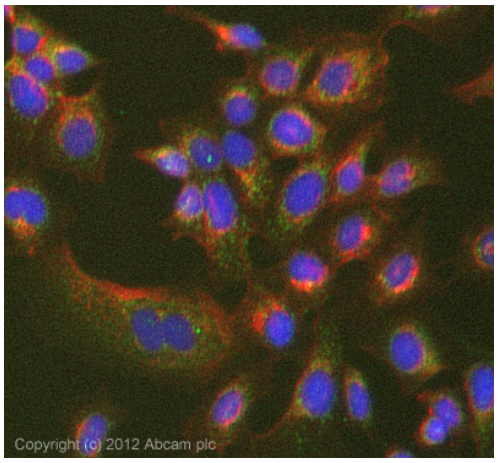
Developed using the ECL technique.

Performed under reducing conditions.

Predicted band size: 93 kDa
Observed band size: 80,80,86,87,93 kDa
why is the actual band size different from the predicted?
Additional bands at: 38 kDa. We are unsure as to the identity of these extra bands.

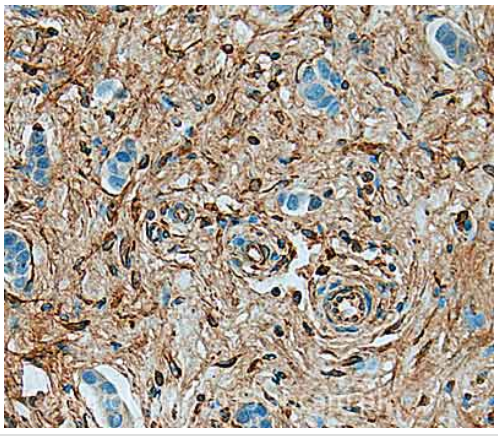
Exposure time: 20 minutes

This antibody was raised against an immunogen that is predicted to recognize isoforms 1,2,3 & 4 of Human Periostin. The predicted molecular weights of isoforms 1,2,3 & 4 are 93, kDa, 87 kDa, 87 kDa and 83 kDa respectively.



Immunocytochemistry/ Immunofluorescence - Anti-Periostin antibody (ab79946)

ICC/IF image of ab79946 stained MCF7 cells. The cells were 100% methanol fixed (5 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 (ab79946, 5µg/ml) overnight at +4°C. The secondary antibody (green) was Alexa Fluor® 488 goat anti-rabbit 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. This antibody also gave a positive result in 4% PFA fixed (10 min) MCF7 cells at 5µg/ml.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Periostin antibody (ab79946)

IHC image of Periostin staining in Human breast fibroadenocarcinoma formalin fixed paraffin embedded tissue section, performed on a Leica BondTM 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 20 mins. The section was then incubated with ab79946, 0.1µg/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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