

# Periostin (H-300): sc-67233

## BACKGROUND

Periostin (PN), also designated osteoblast-specific factor 2 (OSF-2), is a disulfide linked protein originally isolated as a osteoblast-specific factor. Periostin is a secreted protein that binds heparin and functions as a ligand for  $\alpha V\beta 3$  and  $\alpha V\beta 5$  Integrins. In preosteoblasts, Periostin acts as a cell adhesion molecule and plays a role in osteoblast recruitment, spreading and attachment. Periostin is mainly detected in lower gastrointestinal tract, aorta, stomach, placenta, uterus and breast tissues but is upregulated in epithelial ovarian tumors and overexpressed in breast cancer. Expression of Periostin is increased by bone morphogenetic protein (BMP2) and transforming growth factor  $\beta 1$  (TGF $\beta 1$ ). Periostin contains a typical signal sequence, followed by a cysteine-rich domain; a fourfold repeated domain, which shows homology with the insect protein fasciclin, and a C-terminal domain.

## CHROMOSOMAL LOCATION

Genetic locus: POSTN (human) mapping to 13q13.3; Postn (mouse) mapping to 3 C.

## SOURCE

Periostin (H-300) is a rabbit polyclonal antibody raised against amino acids 537-836 mapping at the C-terminus of Periostin of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## APPLICATIONS

Periostin (H-300) is recommended for detection of Periostin of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000). Periostin (H-300) is also recommended for detection of Periostin in additional species, including bovine and porcine.

Suitable for use as control antibody for Periostin siRNA (h): sc-61324, Periostin siRNA (m): sc-61325, Periostin shRNA Plasmid (h): sc-61324-SH, Periostin shRNA Plasmid (m): sc-61325-SH, Periostin shRNA (h) Lentiviral Particles: sc-61324-V and Periostin shRNA (m) Lentiviral Particles: sc-61325-V.

Molecular Weight of Periostin: 90 kDa.

Positive Controls: rat lung extract: sc-2396.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.

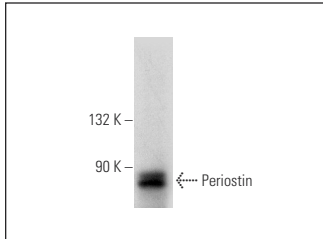
## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.

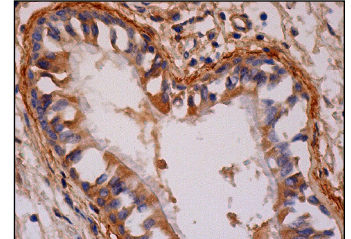
## STORAGE

Store at 4° C, **\*\*DO NOT FREEZE\*\***. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## DATA



Periostin (H-300): sc-67233. Western blot analysis of Periostin expression in rat lung tissue extract.



Periostin (H-300): sc-67233. Immunoperoxidase staining of formalin fixed, paraffin-embedded human bronchus tissue showing cytoplasmic staining of respiratory epithelial cells.

## SELECT PRODUCT CITATIONS

1. Didangelos, A., et al. 2010. Proteomics characterization of extracellular space components in the human aorta. *Mol. Cell. Proteomics* 9: 2048-2062.
2. Abdul-Salam, V.B., et al. 2010. Proteomic analysis of lung tissues from patients with pulmonary arterial hypertension. *Circulation* 122: 2058-2067.
3. Snyder, E.M., et al. 2010. Gene expression in the efferent ducts, epididymis, and vas deferens during embryonic development of the mouse. *Dev. Dyn.* 239: 2479-2491.
4. Calamia, V., et al. 2011. Metabolic labeling of chondrocytes for the quantitative analysis of the interleukin-1- $\beta$ -mediated modulation of their intracellular and extracellular proteomes. *J. Proteome Res.* 10: 3701-3711.
5. Li, L., et al. 2011. Angiotensin II increases periostin expression via Ras/p38 MAPK/CREB and ERK1/2/TGF- $\beta 1$  pathways in cardiac fibroblasts. *Cardiovasc. Res.* 91: 80-89.
6. Stegemann, C., et al. 2013. Proteomic identification of matrix metalloproteinase substrates in the human vasculature. *Circ. Cardiovasc. Genet.* 6: 106-117.
7. Kozono, S., et al. 2013. Pirfenidone inhibits pancreatic cancer desmoplasia by regulating stellate cells. *Cancer Res.* 73: 2345-2356.
8. Amara, S., et al. 2015. Synergistic effect of pro-inflammatory TNF $\alpha$  and IL-17 in periostin mediated collagen deposition: potential role in liver fibrosis. *Mol. Immunol.* 64: 26-35.
9. Cardinale, V., et al. 2015. Profiles of cancer stem cell subpopulations in cholangiocarcinomas. *Am. J. Pathol.* 185: 1724-1739.



Try **Periostin (F-10): sc-398631**, our highly recommended monoclonal alternative to Periostin (H-300). Also, for AC, HRP, FITC, PE, Alexa Fluor<sup>®</sup> 488 and Alexa Fluor<sup>®</sup> 647 conjugates, see **Periostin (F-10): sc-398631**.