BACKGROUND
Periostin (PN), also designated osteoblast-specific factor 2 (OSF-2), is a disul-
phide 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 $\alpha_k\beta_3$ Integrins. In preosteoblasts, Periostin acts as a cell adhesion mol-
ecule 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 up-regulated in epithelial ovarian
tumors and overexpressed in breast cancer. Expression of Periostin is in-
creased by bone morphogenetic protein (BMP2) and transforming growth fac-
tor $\beta$ 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 (F-10) is a mouse monoclonal antibody raised against amino acids
537-836 mapping at the C-terminus of Periostin of human origin.

PRODUCT
Each vial contains 200 µg IgG, kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Periostin (F-10) is conjugated to agarose (sc-398631 AC), 500 µg/
0.25 ml agarose in 1 ml, for IP; to HRP (sc-398631 HRP), 200 µg/ml, for
WB, (HCIP) and ELISA; to either phycocerythrin (sc-398631 PE), fluorescein
(sc-398631 FITC), Alexa Fluor® 488 (sc-398631 AF488), Alexa Fluor® 546
(sc-398631 AF546), Alexa Fluor® 594 (sc-398631 AF594) or Alexa Fluor® 647
(sc-398631 AF647), 200 µg/ml, for WB (RGB), IF, IHCIP and FCM; and to either
Alexa Fluor® 680 (sc-398631 AF680) or Alexa Fluor® 790 (sc-398631 AF790),
200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS
Periostin (F-10) is recommended for detection of Periostin of mouse, rat
and human origin by Western Blotting (starting dilution 1:100, dilution range
1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg 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).

Suitable for use as control antibody for Periostin siRNA (h): sc-61324,
Periostin siRNA (m): sc-61325, Periostin siRNA (r): sc-270567, Periostin
shRNA Plasmid (h): sc-61324-SH, Periostin shRNA Plasmid (m): sc-61325-SH,
Periostin shRNA Plasmid (r): sc-270567-SH, Periostin shRNA (h) Lentiviral
Particles: sc-61324-V, Periostin shRNA (m) Lentiviral Particles: sc-61325-V
and Periostin shRNA (r) Lentiviral Particles: sc-270567-V.

Molecular Weight of Periostin secreted glycoprotein: 90 kDa.
Molecular Weight of Periostin: 84/74 kDa.

RECOMMENDED SUPPORT REAGENTS
To ensure optimal results, the following support reagents are recommended:
1) Western Blotting: use m-IgG B-HP: sc-516102 or m-IgG B-HPR (Cruz
Marker); sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™
Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent:
sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunopre-
cipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).
3) Immunofluorescence: use m-IgG B-FITC: sc-516140 or m-IgG B-PE:
sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium:
sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immuno-
histochemistry: use m-IgG B-HP: sc-516102 with DAB, 50X: sc-24982
and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA
Simultaneous direct near-infrared western blot analysis of Periostin expression, detected with Periostin (F-10) Alexa Fluor® 680: sc-398631 AF680 and GAPDH
expression, detected with GAPDH (D-9) Alexa Fluor® 790: sc-365062 AF790 in human stomach (A) and human lung (B) tissue extracts. Blocked with UltraCruz®
Blocking Reagent: sc-516214. Cruz Marker™ Molecular Weight Standards detected with Cruz Marker MW Tag Alexa Fluor® 790: sc-516731.

SELECT PRODUCT CITATIONS
hemodynamic impairment using laser speckle contrast imaging: possible
role of increased fibrogenesis. Physiol. Rep. 5 pii: e1348.

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

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

PROTOCOLS
See our web site at www.scbt.com for detailed protocols and support
products.

Alexa Fluor® is a trademark of Molecular Probes, Inc., Oregon, USA.