

# PDGFR- $\beta$ (18A2): sc-19995



The Power to Question

## BACKGROUND

Platelet-derived growth factor (PDGF) is a mitogen for mesenchyme- and glia-derived cells. PDGF consists of two chains, A and B, which dimerize to form functionally distinct isoforms, PDGF-AA, PDGF-AB and PDGF-BB. These three isoforms bind with different affinities to two receptor types, PDGFR- $\alpha$  and - $\beta$ , which are endowed with protein tyrosine kinase domains. PDGFR- $\alpha$  can bind to both A and B subunits of PDGF, while PDGFR- $\beta$  can only bind the B subunit. Ligand binding promotes either homo- or heterodimerization of the PDGF receptors in a specific manner. PDGF-AA induces the dimerization of two  $\alpha$  receptors, PDGF-AB induces dimerization of  $\alpha\alpha$  and  $\alpha\beta$  and PDGF-BB induces the formation of three types of dimers,  $\alpha\alpha$ ,  $\alpha\beta$  and  $\beta\beta$ . Translocation of the PDGFR- $\beta$  gene with the Tel gene is linked to chronic myelomonocytic leukemia (CMML), a myelodysplastic syndrome, and demonstrates the oncogenic potential of the PDGF receptors.

## CHROMOSOMAL LOCATION

Genetic locus: PDGFRB (human) mapping to 5q32.

## SOURCE

PDGFR- $\beta$  (18A2) is a mouse monoclonal antibody raised against PDGFR- $\beta$  of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

PDGFR- $\beta$  (18A2) is available conjugated to agarose (sc-19995 AC), 500  $\mu$ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-19995 HRP), 200  $\mu$ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-19995 PE), fluorescein (sc-19995 FITC), Alexa Fluor<sup>®</sup> 488 (sc-19995 AF488), Alexa Fluor<sup>®</sup> 546 (sc-19995 AF546), Alexa Fluor<sup>®</sup> 594 (sc-19995 AF594) or Alexa Fluor<sup>®</sup> 647 (sc-19995 AF647), 200  $\mu$ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor<sup>®</sup> 680 (sc-19995 AF680) or Alexa Fluor<sup>®</sup> 790 (sc-19995 AF790), 200  $\mu$ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

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## APPLICATIONS

PDGFR- $\beta$  (18A2) is recommended for detection of PDGF receptor type  $\beta$  of human origin by 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 flow cytometry (1  $\mu$ g per 1 x 10<sup>6</sup> cells).

Suitable for use as control antibody for PDGFR- $\beta$  siRNA (h): sc-29442, PDGFR- $\beta$  shRNA Plasmid (h): sc-29442-SH and PDGFR- $\beta$  shRNA (h) Lentiviral Particles: sc-29442-V.

Molecular Weight of PDGFR- $\beta$ : 180-190 kDa.

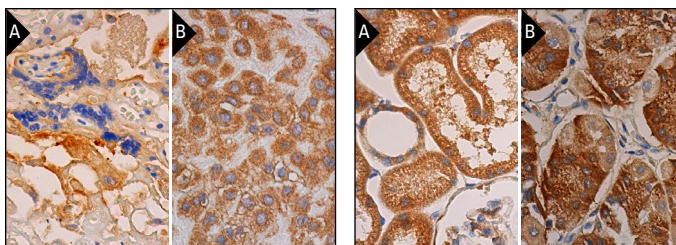
## STORAGE

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.

## DATA



PDGFR- $\beta$  (18A2): sc-19995. Immunoperoxidase staining of formalin fixed, paraffin-embedded human placenta tissue showing cytoplasmic and membrane staining of subset of trophoblastic cells and subset of decidual cells (A,B).

PDGFR- $\beta$  (18A2): sc-19995. Immunoperoxidase staining of formalin fixed, paraffin-embedded human kidney tissue showing cytoplasmic staining of cells in tubules (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human upper stomach tissue showing cytoplasmic staining of glandular cells (B).

## SELECT PRODUCT CITATIONS

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## PROTOCOLS

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