

PDGF-B (N-30): sc-127

BACKGROUND

PDGF is a mitogen for mesenchyme- and glia-derived cells. It consists of two disulfide-bonded polypeptide chains, A and B, and occurs as three isoforms, PDGF AA, PDGF AB and PDGF BB. The three isoforms bind with different affinities to two receptor types, A and B, which are structurally related and endowed with protein-tyrosine kinase domains. Ligand binding induces activation of the receptor kinases by formation of receptor dimers; the A subunit of PDGF binds only to A receptors with high affinity, whereas the B subunit can bind to both A and B receptors. Evidence suggests that PDGF may function as a neurotrophic factor. The fact that PDGF-A receptors are expressed in oligodendrocyte progenitor cells, whereas PDGF-B receptors are expressed on neurons, suggests that the different isoforms of PDGF may regulate growth and differentiation of different cell types in the developing central nervous system by paracrine and autocrine routes.

CHROMOSOMAL LOCATION

Genetic locus: PDGFB (human) mapping to 22q13.1, SDC4 (human) mapping to 20q13.12.

SOURCE

PDGF-B (N-30) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping at the C-terminus of PDGF-B of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-127 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

PDGF-B (N-30) is recommended for detection of precursor and mature PDGF-B and Syndecan-4 of human origin by Western Blotting (starting dilution 1:200, 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).

PDGF-B (N-30) is also recommended for detection of precursor and mature PDGF-B and Syndecan-4 in additional species, including equine, canine, porcine and feline.

Molecular Weight of PDGF-B monomer: 14 kDa.

Molecular Weight of PDGF-B dimer: 31-35 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200.

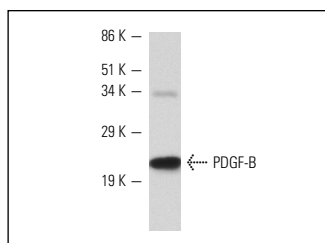
STORAGE

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

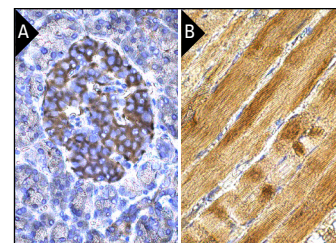
RESEARCH USE

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

DATA



PDGF-B (N-30): sc-127. Western blot analysis of 10 ng of human recombinant PDGF-B showing detection of dimeric form.



PDGF-B (N-30): sc-127. Immunoperoxidase staining of formalin fixed, paraffin-embedded human pancreas tissue showing cytoplasmic staining of islets of Langerhans cells (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human skeletal muscle tissue showing cytoplasmic staining of myocytes (B).

SELECT PRODUCT CITATIONS

- Rich, J.N., et al. 1999. Transforming growth factor β -mediated p15^{INK4B} induction and growth inhibition in astrocytes is Smad3-dependent and a pathway prominently altered in human glioma cell lines. *J. Biol. Chem.* 274: 35053-35058.
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- Hu, X., et al. 2011. GATA4 regulates ANF expression synergistically with Sp1 in a cardiac hypertrophy model. *J. Cell. Mol. Med.* 15: 1865-1877.
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Try **PDGF-B (F-3): sc-365805** or **PDGF-B (C-5): sc-74494**, our highly recommended monoclonal alternatives to PDGF-B (N-30). Also, for AC, HRP, FITC, PE, Alexa Fluor[®] 488 and Alexa Fluor[®] 647 conjugates, see **PDGF-B (F-3): sc-365805**.