SANTA CRUZ BIOTECHNOLOGY, INC.

# PDGF-B (H-55): sc-7878

SANTA CRUZ BIOTECHNOLOGY

*The Power to Question*

## 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; Pdgfb (mouse) mapping to 15 E1.

## SOURCE

PDGF-B (H-55) is a rabbit polyclonal antibody raised against amino acids 136-190 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.

## APPLICATIONS

PDGF-B (H-55) is recommended for detection of precursor and mature PDGF-B of mouse, rat and 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

PDGF-B (H-55) is also recommended for detection of precursor and mature PDGF-B in additional species, including equine, canine and porcine.

Suitable for use as control antibody for PDGF-B siRNA (h): sc-39705, PDGF-B siRNA (m): sc-39706, PDGF-B shRNA Plasmid (h): sc-39705-SH, PDGF-B shRNA Plasmid (m): sc-39706-SH, PDGF-B shRNA (h) Lentiviral Particles: sc-39705-V and PDGF-B shRNA (m) Lentiviral Particles: sc-39706-V.

Molecular Weight of PDGF-B monomer chain: 14 kDa.

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

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

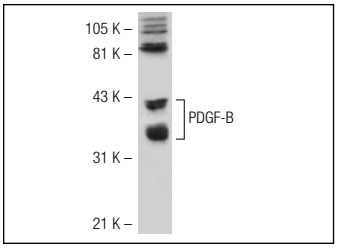
## STORAGE

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

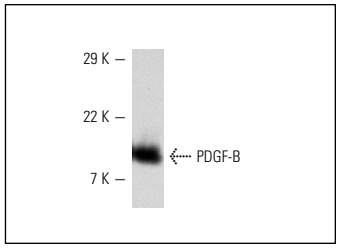
## RESEARCH USE

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

## DATA




PDGF-B (H-55): sc-7878. Western blot analysis of PDGF-B expression in HeLa whole cell lysate.




PDGF-B (H-55): sc-7878. Western blot analysis of human recombinant PDGF-B.

## SELECT PRODUCT CITATIONS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4. Reiberger, T., et al. 2009. Sorafenib attenuates the portal hypertensive syndrome in partial portal vein ligated rats. J. Hepatol. 51: 865-873.
5. Chung, R., et al. 2009. Potential roles of growth factor PDGF-BB in the bony repair of injured growth plate. Bone 44: 878-885.
6. Vercelino, R., et al. 2010. S-nitroso-N-acetylcysteine attenuates liver fibrosis in cirrhotic rats. J. Mol. Med. 88: 401-411.
7. Clark, J., et al. 2010. Oral N-acetyl-cysteine attenuates loss of dopaminergic terminals in α-synuclein overexpressing mice. PLoS ONE 5: e12333.
8. Hoerauf, H., et al. 2011. Pars plana vitrectomy for diabetic macular edema. Internal limiting membrane delamination vs posterior hyaloid removal. A prospective randomized trial. Graefes Arch. Clin. Exp. Ophthalmol. 249: 997-1008.
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