

PDGF-A (H-77): sc-7958

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: PDGFA (human) mapping to 7p22.3; Pdgfa (mouse) mapping to 5 G2.

SOURCE

PDGF-A (H-77) is a rabbit polyclonal antibody raised against amino acids 135-211 of PDGF-A 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-A (H-77) is recommended for detection of precursor and mature PDGF-A 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-A (H-77) is also recommended for detection of precursor and mature PDGF-A in additional species, including avian.

Suitable for use as control antibody for PDGF-A siRNA (h): sc-39703, PDGF-A siRNA (m): sc-39704, PDGF-A shRNA Plasmid (h): sc-39703-SH, PDGF-A shRNA Plasmid (m): sc-39704-SH, PDGF-A shRNA (h) Lentiviral Particles: sc-39703-V and PDGF-A shRNA (m) Lentiviral Particles: sc-39704-V.

Molecular Weight of PDGF-A monomeric A chain: 17 kDa.

Molecular Weight of PDGF-A dimer: 31 kDa.

Positive Controls: mouse brain extract: sc-2253.

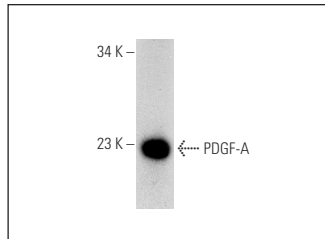
STORAGE

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

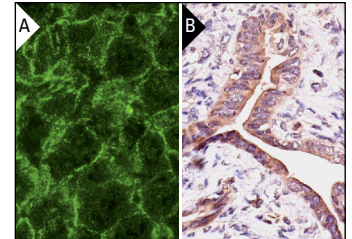
RESEARCH USE

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

DATA



PDGF-A (H-77): sc-7958. Western blot analysis of PDGF-A expression in mouse brain tissue extract.



PDGF-A (H-77): sc-7958. Immunofluorescence staining of normal mouse liver frozen section showing extracellular matrix staining (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human ovary tissue showing cytoplasmic staining of cells in fallopian tube (B).

SELECT PRODUCT CITATIONS

- Savikko, J., et al. 2002. Tacrolimus inhibits platelet-derived growth factor ligand and receptor induction as well as rejection changes in rat renal allografts during long-term follow-up. *Transplant. Proc.* 34: 1382.
- Savikko, J., et al. 2002. The effect of acute rejection and cyclosporin A-treatment on induction of platelet-derived growth factor and its receptors during the development of chronic rat renal allograft rejection. *Transplantation* 73: 506-511.
- Tikkanen, J.M., et al. 2004. Platelet-derived growth factor regulates cytomegalovirus infection-enhanced obliterative bronchiolitis in rat tracheal allografts. *Transplantation* 77: 655-658.
- Nykänen, A.I., et al. 2005. Combined vascular endothelial growth factor and platelet-derived growth factor inhibition in rat cardiac allografts: beneficial effects on inflammation and smooth muscle cell proliferation. *Transplantation* 79: 182-189.
- Kumar, R.N., et al. 2006. Transactivation of platelet-derived growth factor receptor α by the GTPase-deficient activated mutant of $G_{\alpha 12}$. *Mol. Cell. Biol.* 26: 50-62.
- Tikkanen, J.M., et al. 2006. Role of platelet-derived growth factor and vascular endothelial growth factor in obliterative airway disease. *Am. J. Respir. Crit. Care Med.* 174: 1145-1152.
- Hollmén, M., et al. 2008. Tacrolimus treatment effectively inhibits progression of obliterative airway disease even at later stages of disease development. *J. Heart Lung Transplant.* 27: 856-864.


 MONOS
 Satisfaction
 Guaranteed

Try **PDGF-A (E-10): sc-9974** or **PDGF-A (A-1): sc-390392**, our highly recommended monoclonal alternatives to PDGF-A (H-77).