

PDGF-D (H-140): sc-30196

BACKGROUND

Platelet-derived growth factor (PDGF) refers to a family of disulphide-bonded dimeric isoforms that are important for growth and survival, and which function in several types of connective tissue cell. There are four members of the platelet-derived growth factor (PDGF) family: PDGF-A, PDGF-B, PDGF-C and PDGF-D (spinal cord-derived growth factor-B or iris-expressed growth factor). Their biological effects are mediated via two tyrosine kinase receptors, PDGFR- α and PDGFR- β . PDGF-mediated signaling is critical for development of many organ systems. PDGF-D has a two-domain structure similar to PDGF-C and is secreted as a disulphide-linked homodimer, PDGF-DD. Upon limited proteolysis, PDGF-DD is activated and becomes a specific agonistic ligand for PDGFR- β . PDGF-D is expressed in fibroblastic adventitial cells, cultured endothelial cells and in a variety of tumor cell lines.

REFERENCES

1. Bergsten, E., et al. 2001. PDGF-D is a specific, protease-activated ligand for the PDGF β -receptor. *Nat. Cell Biol.* 3: 512-516.
2. Uutela, M., et al. 2001. Chromosomal location, exon structure, and vascular expression patterns of the human PDGFC and PDGFC genes. *Circulation* 103: 2242-2247.
3. LaRoche, W.J., et al. 2001. PDGF-D, a new protease-activated growth factor. *Nat. Cell Biol.* 3: 517-521.
4. Hamada, T., et al. 2001. Molecular cloning of SCDGF-B, a novel growth factor homologous to SCDGF/PDGF-C/fallotein. *Biochem. Biophys. Res. Commun.* 280: 733-737.
5. Zwerner, J.P. and May, W.A. 2001. PDGF-C is an EWS/FLI induced transforming growth factor in Ewing family tumors. *Oncogene* 20: 626-633.

CHROMOSOMAL LOCATION

Genetic locus: PDGFD (human) mapping to 11q22.3; Pdgfd (mouse) mapping to 9A1.

SOURCE

PDGF-D (H-140) is a rabbit polyclonal antibody raised against amino acids 131-270 mapping within an internal region of PDGF-D of human origin.

PRODUCT

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

STORAGE

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

PROTOCOLS

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

APPLICATIONS

PDGF-D (H-140) is recommended for detection of PDGF-D of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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-D (H-140) is also recommended for detection of PDGF-D in additional species, including equine, canine and bovine.

Suitable for use as control antibody for PDGF-D siRNA (h): sc-39709, PDGF-D siRNA (m): sc-39710, PDGF-D shRNA Plasmid (h): sc-39709-SH, PDGF-D shRNA Plasmid (m): sc-39710-SH, PDGF-D shRNA (h) Lentiviral Particles: sc-39709-V and PDGF-D shRNA (m) Lentiviral Particles: sc-39710-V.

Molecular Weight of PDGF-D: 50 kDa.

Positive Controls: mouse kidney extract: sc-2255.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

SELECT PRODUCT CITATIONS

1. Scotti, L., et al. 2013. Involvement of the ANGPTs/Tie-2 system in ovarian hyperstimulation syndrome (OHSS). *Mol. Cell. Endocrinol.* 365: 223-230.

RESEARCH USE

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



Try **PDGF-D (E-6): sc-137031** or **PDGF-D (E-3): sc-137030**, our highly recommended monoclonal alternatives to PDGF-D (H-140).