

PDGF-C (C-17): sc-18228

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. PDGF, which is a major mitogen for vascular smooth muscle cells and is implicated in the pathogenesis of arteriosclerosis, is composed of dimers of PDGF-A and PDGF-B poly-peptide chains encoded by different genes. PDGF-C (also designated spinal cord-derived growth factor, SCDGF or fallotein) is a functional analog of PDGF-A that requires proteolytic activation. PDGF-A and PDGF-C selectively activate PDGFR- α , whereas PDGF-B activates both PDGFR- α and PDGFR- β . PDGF-C expression in the arterial wall and cultured vascular cells suggests that it can transduce proliferation/migration signals to pericytes and smooth muscle cells. Additionally, PDGF-C is a target of EWS/ETS transcriptional deregulation and this transcriptional deregulation is specific to EWS/FLI.

CHROMOSOMAL LOCATION

Genetic locus: PDGFC (human) mapping to 4q32.1; Pdgfc (mouse) mapping to 3 E3.

SOURCE

PDGF-C (C-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of PDGF-C 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.

Blocking peptide available for competition studies, sc-18228 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

PDGF-C (C-17) is recommended for detection of precursor and mature PDGF-C 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), 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-C (C-17) is also recommended for detection of precursor and mature PDGF-C in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for PDGF-C siRNA (h): sc-39707, PDGF-C siRNA (m): sc-39708, PDGF-C shRNA Plasmid (h): sc-39707-SH, PDGF-C shRNA Plasmid (m): sc-39708-SH, PDGF-C shRNA (h) Lentiviral Particles: sc-39707-V and PDGF-C shRNA (m) Lentiviral Particles: sc-39708-V.

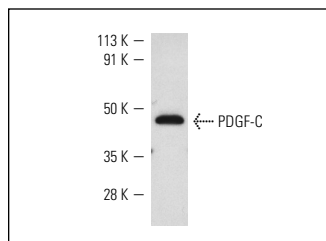
Molecular Weight of PDGF-C isoforms: 46/30 kDa.

Positive Controls: C3H/10T1/2 cell lysate: sc-3801 or mouse uterus extract: sc-364254.

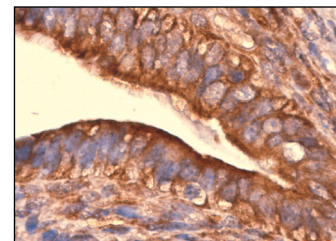
STORAGE

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

DATA



PDGF-C (C-17): sc-18228. Western blot analysis of PDGF-C expression in C3H/10T1/2 whole cell lysate.



PDGF-C (C-17): sc-18228. Immunoperoxidase staining of formalin fixed, paraffin-embedded mouse uterus tissue showing membrane and extracellular localization.

SELECT PRODUCT CITATIONS

- Ingram, J.L., et al. 2006. Opposing actions of Stat1 and Stat6 on IL-13-induced upregulation of early growth response-1 and platelet-derived growth factor ligands in pulmonary fibroblasts. *J. Immunol.* 177: 4141-4148.
- Pohlers, D., et al. 2006. Expression of platelet-derived growth factors C and D in the synovial membrane of patients with rheumatoid arthritis and osteoarthritis. *Arthritis Rheum.* 54: 788-794.
- Yoon, S.J., et al. 2006. Gene expression profiling of early follicular development in primordial, primary, and secondary follicles. *Fertil. Steril.* 85: 193-203.
- Sleer, L.S., et al. 2007. Cell-type localization of platelet-derived growth factors and receptors in the postnatal rat ovary and follicle. *Biol. Reprod.* 76: 379-390.
- Sleer, L.S., et al. 2007. Platelet-derived growth factors and receptors in the rat corpus luteum: localization and identification of an effect on luteogenesis. *Biol. Reprod.* 76: 391-400.
- Abdeen, A., et al. 2009. Correlation between clinical outcome and growth factor pathway expression in osteogenic sarcoma. *Cancer* 115: 5243-5250.
- Bax, N.A., et al. 2009. Platelet-derived growth factor is involved in the differentiation of second heart field-derived cardiac structures in chicken embryos. *Dev. Dyn.* 238: 2658-2669.

RESEARCH USE

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

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Try **PDGF-C (KJ-13): sc-80290**, our highly recommended monoclonal alternative to PDGF-C (C-17).