

PDGF-C (KJ-13): sc-80290

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 polypeptide 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.

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. LaRochelle, W.J., et al. 2001. PDGF-D, a new protease-activated growth factor. *Nat. Cell Biol.* 3: 517-521.
3. Utela, M., et al. 2001. Chromosomal location, exon structure, and vascular expression patterns of the human PDGFC and Pdgfc genes. *Circulation* 103: 2242-2247.
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: *Pdgfc* (mouse) mapping to 3 E3.

SOURCE

PDGF-C (KJ-13) is a rat monoclonal antibody raised against a recombinant protein mapping within amino acids 230-345 of PDGF-C of mouse origin.

PRODUCT

Each vial contains 100 μ g IgG₁ kappa in 1.0 mL PBS with < 0.1% sodium azide and protein stabilizer.

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 for detailed protocols and support products.

APPLICATIONS

PDGF-C (KJ-13) is recommended for detection of PDGF-C of mouse origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)].

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

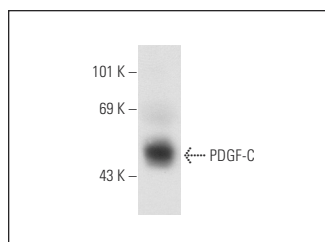
Molecular Weight of PDGF-C: 46/30 kDa.

Positive Controls: mouse prostate extract: sc-364249, mouse uterus tissue: sc-364254 or C3H/10T1/2 cell lysate: sc-3801.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

DATA



PDGF-C (KJ-13): sc-80290. Western blot analysis of PDGF-C expression in mouse prostate tissue extract.

RESEARCH USE

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