

# PDGF-C (T-20): sc-23555

## 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- $\alpha$ , whereas PDGF-B activates both PDGFR- $\alpha$  and PDGFR- $\beta$ . 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  $\beta$ -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 (human) mapping to 4q32.1; Pdgfc (mouse) mapping to 3 E3.

## SOURCE

PDGF-C (T-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of PDGF-C precursor of human origin.

## PRODUCT

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

Blocking peptide available for competition studies, sc-23555 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## 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.

## APPLICATIONS

PDGF-C (T-20) is recommended for detection of precursor and, to a lesser extent, mature PDGF-C of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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-C (T-20) is also recommended for detection of precursor and, to a lesser extent, mature PDGF-C in additional species, including equine and bovine.

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: 46/30 kDa.

Positive Controls: C3H/10T1/2 cell lysate: sc-3801.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.



Try **PDGF-C (KJ-13): sc-80290**, our highly recommended monoclonal alternative to PDGF-C (T-20).