

p-PDGFR- β (Tyr 771): sc-17174

BACKGROUND

Platelet derived growth factor (PDGF) is a mitogen for mesenchyme- and glia-derived cells. PDGF consists of two chains, A and B, which dimerize to form functionally distinct isoforms, PDGF-AA, PDGF-AB, and PDGF-BB. These three isoforms bind with different affinities to two receptor types, α and β , which are endowed with protein tyrosine kinase domains and undergo either homo- or heterodimerization as a consequence of ligand binding. Ligand stimulation of PDGFR- β leads to autophosphorylation at Tyr 857, which is the major autophosphorylation site, and Tyr 751, which is the major *in vitro* phosphorylation site. Autophosphorylation of Tyr 751, which lies in the kinase insert region, is required for binding of phosphatidylinositol-3 kinase to the receptor. These autophosphorylation events largely contribute to signal transduction through the PDGF receptor.

CHROMOSOMAL LOCATION

Genetic locus: PDGFRB (human) mapping to 5q32.

SOURCE

p-PDGFR- β (Tyr 771) is available as either goat (sc-17174) or rabbit (sc-17174-R) polyclonal affinity purified antibody raised against a short amino acid sequence containing Tyr 771 phosphorylated PDGFR- β 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-17174 P, (100 μ 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.

APPLICATIONS

p-PDGFR- β (Tyr 771) is recommended for detection of Tyr 771 phosphorylated PDGFR- β of 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).

p-PDGFR- β (Tyr 771) is also recommended for detection of correspondingly phosphorylated PDGFR- β in additional species, including equine and bovine.

Suitable for use as control antibody for PDGFR- β siRNA (h): sc-29442, PDGFR- β shRNA Plasmid (h): sc-29442-SH and PDGFR- β shRNA (h) Lentiviral Particles: sc-29442-V.

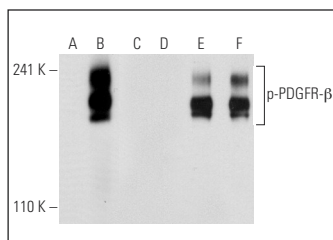
Molecular Weight of p-PDGFR- β : 190 kDa.

Positive Controls: CCD-1064Sk + PDGF cell lysate: sc-2264.

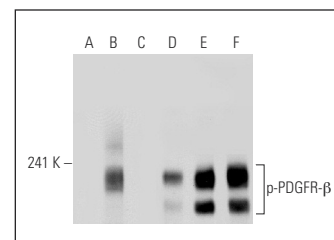
RECOMMENDED SECONDARY REAGENTS

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 B Blocking Reagent: sc-2335 (use 50 mM NaF, sc-24988, as diluent), Western Blotting Luminol Reagent: sc-2048 and Lambda Phosphatase: sc-200312A. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



Western blot analysis of PDGFR- β phosphorylation in non-transfected: sc-117752 (A,D), untreated human PDGFR- β transfected: sc-159386 (B,E) and lambda protein phosphatase (sc-200312A) treated human PDGFR- β transfected: sc-159386 (C,F) 293T whole cell lysates. Antibodies tested include p-PDGFR- β (Tyr 771)-R: sc-17174-R (A,B,C) and PDGFR- β (11H4): sc-80991 (D,E,F).



Western blot analysis of PDGFR- β phosphorylation in untreated (A,D), PDGF treated (B,E) and PDGF and lambda protein phosphatase treated (C,F) NIH/3T3 whole cell lysates. Antibodies tested include p-PDGFR- β (Tyr 771)-R: sc-17174-R (A,B,C) and PDGFR- β (11H4): sc-80991 (D,E,F).

SELECT PRODUCT CITATIONS

1. Mahon, E.S., et al. 2005. A-Raf associates with and regulates platelet-derived growth factor receptor signalling. *Cell. Signal.* 17: 857-868.

RESEARCH USE

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

PROTOCOLS

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