**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 hetero-dimerization as a consequence of ligand binding. Following binding of PDGF, the PDGFR-α becomes phosphorylated in its kinase insert domain at Tyr720. Phosphorylation of PDGFR-α at Tyr720 is required for the association of SHP-2 and GRB2. In the PDGFR-α/β heterodimer, the α-receptor is phosphorylated at Tyr754. Phosphorylation of Tyr754 permits the binding of specific isoforms to two receptor types, 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 hetero-dimerization as a consequence of ligand binding.

**CHROMOSOMAL LOCATION**

Genetic locus: PDGFR (human) mapping to 4q12; Pdgfra (mouse) mapping to 5 C3.3.

**SOURCE**

p-PDGFR-α (Tyr 720) is available as either goat (sc-12910) or rabbit (sc-12910-R) polyclonal affinity purified antibody raised against a short amino acid sequence containing Tyr720 phosphorylated PDGFR-α of human origin.

**PRODUCT**

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-12910 P (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

**APPLICATIONS**

p-PDGFR-α (Tyr 720) is recommended for detection of Tyr 720 phosphorylated PDGFR-α of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg 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-α (Tyr 720) is also recommended for detection of correspondingly phosphorylated PDGFR-α in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for PDGFR-α siRNA (h): sc-29443, PDGFR-α siRNA (m): sc-29444, PDGFR-α shRNA Plasmid (h): sc-29443-SH, PDGFR-α shRNA Plasmid (m): sc-29444-SH, PDGFR-α shRNA (h) Lentiviral Particles: sc-29443-V and PDGFR-α shRNA (m) Lentiviral Particles: sc-29444-V.

Molecular Weight of p-PDGFR-α: 185 kDa.

Positive Controls: A-431 + EGF whole cell lysate: sc-2202, CCD-1064Sk + PDGF cell lysate: sc-2264 or NIH/3T3 + PDGFR cell lysate: sc-3803.

**DATA**

p-PDGFR-α (Tyr 720)-R: sc-12910-R. Western blot analysis of PDGFR-α phosphorylation in untreated (A,C) and PDGF-treated (B,D) CCD-1064Sk (A,B) and NIH/3T3 (C,D) and untreated (E) and EGF-treated (F) A-431 whole cell lysates.

**SELECT PRODUCT CITATIONS**


**RESEARCH USE**

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