

p-PDGFR- α (Tyr 754): sc-12911

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 Tyr 720. Phosphorylation of PDGFR- α at Tyr 720 is required for the association of SHP-2 and GRB2. In the PDGFR- α / β heterodimer, the α -receptor is phosphorylated at Tyr 754. Phosphorylation of Tyr 754 permits the binding of specific signal transduction molecules, thereby initiating signal-transduction pathways from the PDGFR- α / β heterodimer.

CHROMOSOMAL LOCATION

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

SOURCE

p-PDGFR- α (Tyr 754) is available as either goat (sc-12911) or rabbit (sc-12911-R) polyclonal affinity purified antibody raised against a short amino acid sequence containing Tyr 754 phosphorylated PDGFR- α 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-12911 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

p-PDGFR- α (Tyr 754) is recommended for detection of Tyr 754 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 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).

p-PDGFR- α (Tyr 754)-R 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.

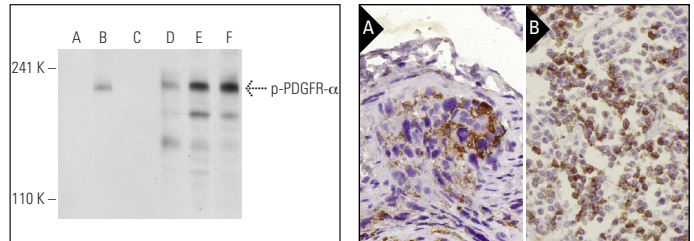
STORAGE

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.

DATA



Western blot analysis of PDGFR- α phosphorylation in untreated (A, D), PDGF treated (B, E) and PDGF and lambda protein phosphatase (sc-200312A) treated (C, F) NIH/3T3 whole cell lysates. Antibodies tested include p-PDGFR- α (Tyr 754)-R: sc-12911-R (A, B, C) and PDGFR- α (951): sc-431 (D, E, F).

p-PDGFR- α (Tyr 754): sc-12911. Immunoperoxidase staining of formalin-fixed, paraffin-embedded lung osteosarcoma tissue (A) and medulloblastoma tissue (B) showing membrane and cytoplasmic staining. Kindly provided by Dr. Huizhen Zhang, Rood Laboratory, Children's National Medical Center.

SELECT PRODUCT CITATIONS

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