

PDGFR- α (951): sc-431

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, PDGFR- α and - β , which are endowed with protein tyrosine kinase domains. PDGFR- α can bind to both A and B subunits of PDGF, while PDGFR- β can only bind the B subunit. Ligand binding promotes either homo- or heterodimerization of the PDGF receptors in a specific manner. PDGF-AA induces the dimerization of two α receptors, PDGF-AB induces dimerization of $\alpha\alpha$ and $\alpha\beta$, and PDGF-BB induces the formation of three types of dimers, $\alpha\alpha$, $\alpha\beta$ and $\beta\beta$. The genes encoding the PDGF α and β receptors map to human chromosome 4q12 and 5q33.1, respectively. Translocation of the PDGFR- β gene with the Tel gene is linked with chronic myelomonocytic leukemia (CMML), a myelodysplastic syndrome, and demonstrates the oncogenic potential of the PDGF receptors.

CHROMOSOMAL LOCATION

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

SOURCE

PDGFR- α (951) is a rabbit polyclonal antibody raised against amino acids 951-1089 of 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.

APPLICATIONS

PDGFR- α (951) is recommended for detection of 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

PDGFR- α (951) is also recommended for detection of 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 PDGFR- α : 170 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, HEK293 whole cell lysate: sc-45136 or NIH/3T3 whole cell lysate: sc-2210.

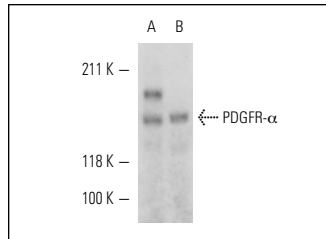
STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

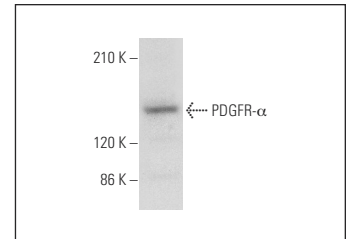
RESEARCH USE

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

DATA



PDGFR- α (951): sc-431. Western blot analysis of PDGFR- α expression in NIH/3T3 (A) and HeLa (B) whole cell lysates.



PDGFR- α (951): sc-431. Western blot analysis of PDGFR- α expression in HEK293 whole cell lysate.

SELECT PRODUCT CITATIONS

- Ebert, M., et al. 1995. Induction of platelet derived growth factor A and B chains and over-expression of their receptors in human pancreatic cancer. *Int. J. Cancer* 62: 529-535.
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Try **PDGFR- α (C-9): sc-398206** or **PDGFR- α (16A1): sc-21789**, our highly recommended monoclonal alternatives to PDGFR- α (951). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **PDGFR- α (C-9): sc-398206**.