

p-RPTP α (Ser 180): sc-130216

BACKGROUND

Receptor protein-tyrosine phosphatase α (RPTP α) dephosphorylates and activates Src family tyrosine kinases and influences the regulation of integrin signaling, cell adhesion and growth factor responsiveness. RPTP α contains an extracellular domain, a single transmembrane segment and two tandem intracytoplasmic catalytic domains, and constitutively forms dimers in the membrane. The human RPTP α sequence encodes a 793 amino acid protein. Mouse RPTP α precipitated from NIH/3T3 cells is constitutively phosphorylated at Ser 180/Ser 204. Human RPTP α is subject to phosphorylation on specific amino acid residues, including Ser 180.

REFERENCES

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3. Ardini, E., Agresti, R., Tagliabue, E., Greco, M., Aiello, P., Yang, L.T., Menard, S. and Sap, J. 2000. Expression of protein tyrosine phosphatase α (RPTP α) in human breast cancer correlates with low tumor grade, and inhibits tumor cell growth *in vitro* and *in vivo*. *Oncogene* 19: 4979-4987.
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5. Yahiro, K., Wada, A., Nakayama, M., Kimura, T., Ogushi, K., Niidome, T., Aoyagi, H., Yoshino, K., Yonezawa, K., Moss, J. and Hirayama, T. 2003. Protein-tyrosine phosphatase α , RPTP α , is a *Helicobacter pylori* VacA receptor. *J. Biol. Chem.* 278: 19183-19189.
6. von Wichert, G., Jiang, G., Kostic, A., De Vos, K., Sap, J. and Sheetz, M.P. 2003. RPTP α acts as a transducer of mechanical force on Integrin α V/ β 3 cytoskeleton linkages. *J. Cell Biol.* 161: 143-153.

CHROMOSOMAL LOCATION

Genetic locus: PTPRA (human) mapping to 20p13.

SOURCE

p-RPTP α (Ser 180) is a rabbit polyclonal antibody raised against a short amino acid sequence containing phosphorylated Ser 180 of RPTP α of human origin.

PRODUCT

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

RESEARCH USE

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

APPLICATIONS

p-RPTP α (Ser 180) is recommended for detection of Ser 180 phosphorylated RPTP α of human origin by 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).

Suitable for use as control antibody for RPTP α siRNA (h): sc-44082, RPTP α shRNA Plasmid (h): sc-44082-SH and RPTP α shRNA (h) Lentiviral Particles: sc-44082-V.

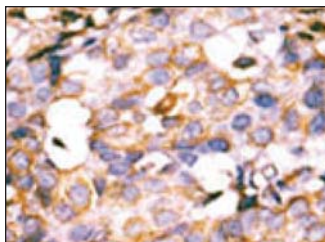
Molecular Weight of p-RPTP α : 91 kDa.

Positive Controls: human cancer tissue.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 2) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

DATA



p-RPTP α (Ser 180): sc-130216. Immunoperoxidase staining of formalin fixed, paraffin-embedded human cancer tissue showing cytoplasmic staining.

STORAGE

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

PROTOCOLS

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