

# RPTP $\alpha$ (H-200): sc-28907

## BACKGROUND

Receptor protein-tyrosine phosphatase  $\alpha$  (RPTP $\alpha$ ) dephosphorylates and activates Src family tyrosine kinases and influences the regulation of integrin signaling, cell adhesion and growth factor responsiveness. RPTP $\alpha$  contains an extracellular domain, a single transmembrane segment and two tandem intracytoplasmic catalytic domains, and constitutively forms dimers in the membrane. The human RPTP $\alpha$  sequence encodes a 793 amino acid protein. Mouse RPTP $\alpha$  precipitated from NIH/3T3 cells is constitutively phosphorylated at Ser180/Ser204. RPTP $\alpha$  also serves as a receptor for *Helicobacter pylori* vacuolating cytotoxin, VacA.

## REFERENCES

1. Tracy, S., et al. 1995. The receptor-like protein-tyrosine phosphatase, RPTP $\alpha$ , is phosphorylated by protein kinase C on two serines close to the inner face of the plasma membrane. *J. Biol. Chem.* 270: 10587-10594.
2. Ardini, E., et al. 2000. Expression of protein tyrosine phosphatase  $\alpha$  (RPTP $\alpha$ ) in human breast cancer correlates with low tumor grade, and inhibits tumor cell growth *in vitro* and *in vivo*. *Oncogene* 19: 4979-4987.

## CHROMOSOMAL LOCATION

Genetic locus: PTPRA (human) mapping to 20p13; Ptpa (mouse) mapping to 2 F1.

## SOURCE

RPTP $\alpha$  (H-200) is a rabbit polyclonal antibody raised against amino acids 21-220 mapping near the N-terminus of RPTP $\alpha$  of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## APPLICATIONS

RPTP $\alpha$  (H-200) is recommended for detection of RPTP $\alpha$  of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ 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).

RPTP $\alpha$  (H-200) is also recommended for detection of RPTP $\alpha$  in additional species, including bovine and equine.

Suitable for use as control antibody for RPTP $\alpha$  siRNA (h): sc-44082, RPTP $\alpha$  siRNA (m): sc-153120, RPTP $\alpha$  shRNA Plasmid (h): sc-44082-SH, RPTP $\alpha$  shRNA Plasmid (m): sc-153120-SH, RPTP $\alpha$  shRNA (h) Lentiviral Particles: sc-44082-V and RPTP $\alpha$  shRNA (m) Lentiviral Particles: sc-153120-V.

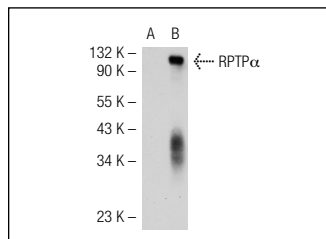
Molecular Weight of RPTP $\alpha$ : 91 kDa.

Positive Controls: RPTP $\alpha$  (h): 293T lysate: sc-113711 or NIH/3T3 whole cell lysate: sc-2210.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

## DATA



RPTP $\alpha$  (H-200): sc-28907. Western blot analysis of RPTP $\alpha$  expression in non-transfected: sc-117752 (A) and human RPTP $\alpha$  transfected: sc-113711 (B) 293T whole cell lysates.

## 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.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.

**MONOS**  
Satisfaction  
Guaranteed

Try RPTP $\alpha$  (H-4): sc-398203 or RPTP $\alpha$  (C-8): sc-398243, our highly recommended monoclonal alternatives to RPTP $\alpha$  (H-200).