

# PTPRCAP (C-15): sc-241651

## BACKGROUND

Protein tyrosine phosphorylation influences cell responses including growth, proliferation, differentiation, migration, metabolism and survival. Tyrosine phosphorylation is a reversible process in balance with the activities of protein tyrosine kinases and protein tyrosine phosphatases (PTP). The PTP superfamily includes transmembrane receptor-like PTPs, cytosolic phosphotyrosine specific PTPs, Dual Specificity PTPs (DSP), and Multiple Specificity PTP (MSPs). PTPRCAP (protein tyrosine phosphatase, receptor type, C-associated protein), also designated LPAP or CD45-AP, is 206 amino acid single-pass membrane protein that specifically associated with CD45, a key regulator of T- and B-lymphocyte activation. PTPRCAP stabilizes the association of CD45 with substrates and regulates the threshold of T-cell activation. PTPRCAP is implicated in activating the oncogenic Src family kinases.

## REFERENCES

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- Nicholas, R.S., et al. 2003. The role of the PTPRC (CD45) mutation in the development of multiple sclerosis in the North West region of the United Kingdom. *J. Neurol. Neurosurg. Psychiatry* 74: 944-945.
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## CHROMOSOMAL LOCATION

Genetic locus: PTPRCAP (human) mapping to 11q13.2; Ptprcap (mouse) mapping to 19 A.

## SOURCE

PTPRCAP (C-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of PTPRCAP of human origin.

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-241651 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

PTPRCAP (C-15) is recommended for detection of PTPRCAP of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

PTPRCAP (C-15) is also recommended for detection of PTPRCAP in additional species, including equine, canine and porcine.

Suitable for use as control antibody for PTPRCAP siRNA (h): sc-96314, PTPRCAP siRNA (m): sc-152587, PTPRCAP shRNA Plasmid (h): sc-96314-SH, PTPRCAP shRNA Plasmid (m): sc-152587-SH, PTPRCAP shRNA (h) Lentiviral Particles: sc-96314-V and PTPRCAP shRNA (m) Lentiviral Particles: sc-152587-V.

Molecular Weight of PTPRCAP: 32 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, CTLL-2 cell lysate: sc-2242 or TK-1 whole cell lysate: sc-364798.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## 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.