

PTP-H1 (N-19): sc-9789

BACKGROUND

The phosphorylation of proteins at tyrosine residues has long been recognized as an important regulatory component of signal transduction. This is a reversible process, involving both enzymes that phosphorylate proteins on tyrosine residues as well as a rapidly expanding family of protein tyrosine phosphatases. These latter enzymes bear little resemblance to either the protein serine and protein threonine phosphatases or to the acid and alkaline phosphatases. In most tissues, the major PTPase is a vanadate- and molybdate-sensitive protein. PTP-H1 shares homology with the cytoskeletal-associated proteins band 4.1, ezrin, and talin and has been shown to contain a PDZ and band 4.1 domain. These domains are responsible for targeting proteins to the cytoskeleton-membrane interface, as well as mediating protein-protein interactions, recognizing C-terminal valine residues and binding to other PDZ domains. Overexpression of PTP-H1 may reverse transformation induced by oncogenic protein-tyrosine kinases, such as the members of the src family.

CHROMOSOMAL LOCATION

Genetic locus: PTPN3 (human) mapping to 9q31.3; Ptpn3 (mouse) mapping to 4 B3.

SOURCE

PTP-H1 (N-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of PTP-H1 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-9789 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

PTP-H1 (N-19) is recommended for detection of PTP-H1 of mouse and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg 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).

PTP-H1 (N-19) is also recommended for detection of PTP-H1 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for PTP-H1 siRNA (h): sc-44053, PTP-H1 siRNA (m): sc-152580, PTP-H1 shRNA Plasmid (h): sc-44053-SH, PTP-H1 shRNA Plasmid (m): sc-152580-SH, PTP-H1 shRNA (h) Lentiviral Particles: sc-44053-V and PTP-H1 shRNA (m) Lentiviral Particles: sc-152580-V.

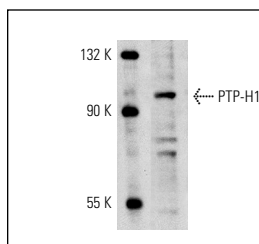
Molecular Weight of PTP-H1: 104 kDa.

Positive Controls: NIH/3T3 whole cell lysate: sc-2210.

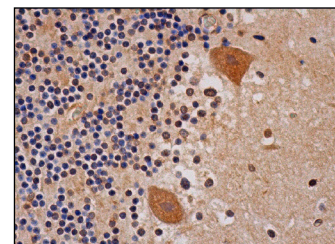
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use 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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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. 4) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

DATA



PTP-H1 (N-19): sc-9789. Western blot analysis of PTP-H1 expression in NIH/3T3 whole cell lysate.



PTP-H1 (N-19): sc-9789. Immunoperoxidase staining of formalin fixed, paraffin-embedded human cerebellum tissue showing cytoplasmic staining of Purkinje cells and cytoplasmic and nuclear staining of cells in granular layer and cells in molecular layer.

SELECT PRODUCT CITATIONS

1. Wu, C.W., et al. 2006. PTPN3 and PTPN4 tyrosine phosphatase expression in human gastric adenocarcinoma. *Anticancer Res.* 26: 1643-1649.
2. Zhi, H.Y., et al. 2011. PTPH1 cooperates with vitamin D receptor to stimulate breast cancer growth through their mutual stabilization. *Oncogene* 30: 1706-1715.

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.

MONOS
Satisfaction
Guaranteed

Try **PTP-H1 (H-6): sc-515181**, our highly recommended monoclonal alternative to PTP-H1 (N-19).