

SH-PTP2 (N-17): sc-30687

BACKGROUND

The steady state of protein tyrosyl phosphorylation in cells is regulated by the opposing action of tyrosine kinases and protein tyrosine phosphatases (PTPs). Several groups have independently identified a non-transmembrane PTP, designated SH-PTP1 (also known as PTP1C, HCP and SHP), which is primarily expressed in hematopoietic cells and characterized by the presence of two SH2 domains N-terminal to the PTP domain. SH2 domains generally mediate the association of regulatory molecules with specific phosphotyrosine-containing sites on autophosphorylated receptors, thereby controlling the initial interaction of receptors with these substrates. A second and much more widely expressed PTP with SH2 domains, SH-PTP2 (also designated PTP1D and Syp), has been identified. Strong sequence similarity between SH-PTP2 and the *Drosophila* gene corkscrew (CSW) and their similar patterns of expression suggest that SH-PTP2 is the human corkscrew homolog.

REFERENCES

1. Chernoff, J., et al. 1990. Cloning of a cDNA for a major human protein-tyrosine-phosphatase. Proc. Natl. Acad. Sci. USA 87: 2735-2739.
2. Shen, S., et al. 1991. A protein-tyrosine phosphatase with sequence similarity to the SH2 domain of the protein-tyrosine kinases. Nature 352: 736-739.
3. Plutzky, J., et al. 1992. Isolation of a Src homology 2-containing tyrosine phosphatase. Proc. Natl. Acad. Sci. USA 89: 1123-1127.
4. Yi, T., et al. 1992. Protein tyrosine phosphatase containing SH2 domains: characterization, preferential expression in hematopoietic cells, and localization to human chromosome 12p12-p13. Mol. Cell. Biol. 12: 836-846.

CHROMOSOMAL LOCATION

Genetic locus: PTPN11 (human) mapping to 12q24.13; Ptpn11 (mouse) mapping to 5 F.

SOURCE

SH-PTP2 (N-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of SH-PTP2 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-30687 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

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.

APPLICATIONS

SH-PTP2 (N-17) is recommended for detection of SH-PTP2 of mouse, rat 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

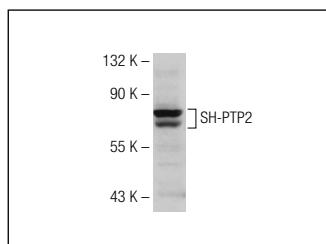
SH-PTP2 (N-17) is also recommended for detection of SH-PTP2 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for SH-PTP2 siRNA (h): sc-36488, SH-PTP2 siRNA (m): sc-36489, SH-PTP2 shRNA Plasmid (h): sc-36488-SH, SH-PTP2 shRNA Plasmid (m): sc-36489-SH, SH-PTP2 shRNA (h) Lentiviral Particles: sc-36488-V and SH-PTP2 shRNA (m) Lentiviral Particles: sc-36489-V.

Molecular Weight of SH-PTP2: 70 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, NIH/3T3 whole cell lysate: sc-2210 or U-937 cell lysate: sc-2239.

DATA



SH-PTP2 (N-17): sc-30687. Western blot analysis of SH-PTP2 expression in Jurkat whole cell lysate.

SELECT PRODUCT CITATIONS

1. Maus, M., et al. 2009. Grb2 associated binder 2 couples B cell receptor to cell survival. Cell. Signal. 21: 220-227.
2. Szili, D., et al. 2014. Suppression of innate and adaptive B cell activation pathways by antibody coengagement of FcγRIIb and CD19. MAbs 6: 991-999.

PROTOCOLS

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



Try **SH-PTP2 (B-1): sc-7384** or **SH-PTP2 (D-3): sc-271053**, our highly recommended monoclonal alternatives to SH-PTP2 (N-17). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **SH-PTP2 (B-1): sc-7384**.