

#3759 Store at -20°C

# SHP-1 (C14H6) Rabbit mAb



✓ 100 µl  
(10 western blots)

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Entrez-Gene ID #5777  
Swiss-Prot Acc. #P29350

Applications	Species Cross-Reactivity*	Molecular Wt.	Isotype
W Endogenous	H, M, (R)	68 kDa	Rabbit IgG**

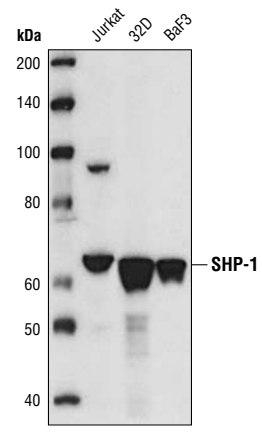
**Background:** SHP-1 (PTPN6) is a non-receptor protein tyrosine phosphatase that is expressed primarily in hematopoietic cells. The enzyme is composed of two SH2 domains, a tyrosine phosphatase catalytic domain and a carboxy-terminal regulatory domain (1). SHP-1 removes phosphates from target proteins to down regulate several tyrosine kinase regulated pathways. In hematopoietic cells, the N-terminal SH2 domain of SHP-1 binds to tyrosine phosphorylated erythropoietin receptors (EpoR) to negatively regulate hematopoietic growth (2). Over expression of SHP-1 in epithelial cells results in dephosphorylation of the Ros receptor tyrosine kinase and subsequent downregulation of Ros-dependent cell proliferation and transformation (3). Following ligand binding in myeloid cells, SHP-1 associates with IL-3R β chain and down regulates IL-3-induced tyrosine phosphorylation and cell proliferation (4). Because SHP-1 down regulates various proliferation pathways, SHP-1 is considered a potential tumor suppressor and angiogenesis regulator (5,6).

**Specificity/Sensitivity:** SHP-1 (C14H6) Rabbit mAb detects endogenous level of total SHP-1 protein.

**Source/Purification:** Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Pro161 of human SHP-1.

**Background References:**

- (1) Yi, T.L. et al. (1992) *Mol Cell Biol* 12, 836–46.
- (2) Yi, T. et al. (1995) *Blood* 85, 87–95.
- (3) Keilhack, H. et al. (2001) *J Cell Biol* 152, 325–34.
- (4) Yi, T. et al. (1993) *Mol Cell Biol* 13, 7577–86.
- (5) Wu, C. et al. (2003) *Gene* 306, 1–12.
- (6) Bhattacharya, R. et al. (2008) *J Mol Signal* 3, 8.



Western blot analysis of extracts from Jurkat, 32D and BaF3 cells using SHP-1 (C14H6) Rabbit mAb.

**Storage:** Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at -20°C. Do not aliquot the antibody.

\*Species cross-reactivity is determined by western blot.

\*\*Anti-rabbit secondary antibodies must be used to detect this antibody.

**Recommended Antibody Dilutions:**

Western Blotting 1:1000

For application specific protocols please see the web page for this product at [www.cellsignal.com](http://www.cellsignal.com).

Please visit [www.cellsignal.com](http://www.cellsignal.com) for a complete listing of recommended companion products.

**IMPORTANT: For western blots, incubate membrane with diluted antibody in 5% w/v BSA, 1X TBS, 0.1% Tween-20 at 4°C with gentle shaking, overnight.**

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**Applications Key:** W—Western IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA-Peptide  
**Species Cross-Reactivity Key:** H—human M—mouse R—rat Hm—hamster Mk—monkey Mi—mink C—chicken Dm—D. melanogaster X—Xenopus Z—zebrafish B—bovine  
 Dg—dog Pg—pig Sc—S. cerevisiae Ce—C. elegans Hr—horse All—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.