

# Anti-SHP1 Antibody

## ER1802-74



<b>Product Type:</b>	Rabbit polyclonal IgG, primary antibodies
<b>Species reactivity:</b>	Human, Mouse, Rat
<b>Applications:</b>	WB, IF-Cell, IHC-P, FC
<b>Molecular Wt:</b>	Predicted band size: 68 kDa

**Description:** 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.

**Immunogen:** Synthetic peptide of C-terminal human SHP1.

**Positive control:** K-562 cell lysate, MCF7 cell lysate, RAW264.7 cell lysate, mouse spleen tissue lysate, mouse colon tissue lysate, rat spleen tissue lysate, RAW264.7, human spleen tissue, human tonsil tissue, rat spleen tissue.

**Subcellular location:** Nucleus. Cytoplasm.

**Database links:** SwissProt: P29350 Human | P29351 Mouse | P81718 Rat

### Recommended Dilutions:

<b>WB</b>	1:5,000
<b>IF-Cell</b>	1:50-1:200
<b>IHC-P</b>	1:50-1:200
<b>FC</b>	1:1,000

**Storage Buffer:** 1\*PBS (pH7.4), 0.2% BSA, 50% Glycerol. Preservative: 0.05% Sodium Azide.

**Storage Instruction:** Shipped at 4°C. Store at +4°C short term (1-2 weeks). It is recommended to aliquot into single-use upon delivery. Store at -20°C long term.

**Purity:** Immunogen affinity purified.

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Orders:0086-571-88062880

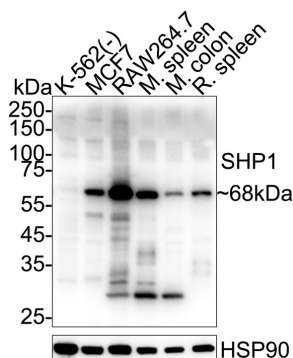
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## Images

**Fig1:** Western blot analysis of SHP1 on different lysates with Rabbit anti-SHP1 antibody (ER1802-74) at 1/5,000 dilution.



Lane 1: K-562 cell lysate (negative)

Lane 2: MCF7 cell lysate

Lane 3: RAW264.7 cell lysate

Lane 4: Mouse spleen tissue lysate

Lane 5: Mouse colon tissue lysate

Lane 6: Rat spleen tissue lysate

Lysates/proteins at 15 µg/Lane.

Predicted band size: 68 kDa

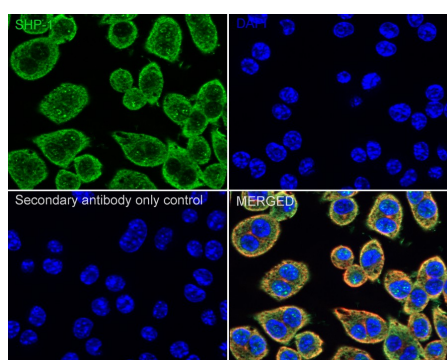
Observed band size: 68 kDa

Exposure time: 10 seconds; ECL: K1801;

4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (ER1802-74) at 1/5,000 dilution was used in primary antibody dilution (K1803) at 4 °C overnight. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1/50,000 dilution was used for 1 hour at room temperature.

**Fig2:** Immunocytochemistry analysis of RAW264.7 cells labeling SHP1 with Rabbit anti-SHP1 antibody (ER1802-74) at 1/100 dilution.



Cells were fixed in 4% paraformaldehyde for 15 minutes at room temperature, permeabilized with 0.1% Triton X-100 in PBS for 15 minutes at room temperature, then blocked with 1% BSA in 10% negative goat serum for 1 hour at room temperature. Cells were then incubated with Rabbit anti-SHP1 antibody (ER1802-74) at 1/100 dilution in 1% BSA in PBST overnight at 4 °C. Goat Anti-Rabbit IgG H&L (iFluor™ 488, HA1121) was used as the secondary antibody at 1/1,000 dilution. PBS instead of the primary antibody was used as the secondary antibody only control. Nuclear DNA was labelled in blue with DAPI.

Beta tubulin (HA601187, red) was stained at 1/100 dilution overnight at +4 °C. Goat Anti-Mouse IgG H&L (iFluor™ 594, HA1126) was used as the secondary antibody at 1/1,000 dilution.

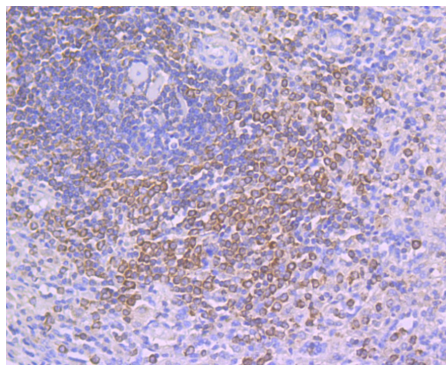
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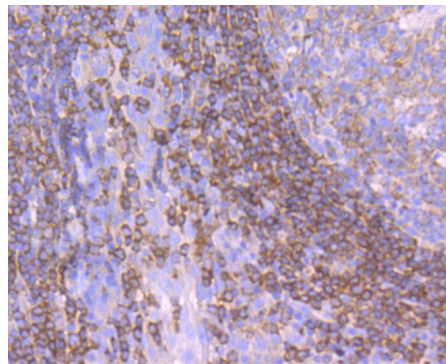
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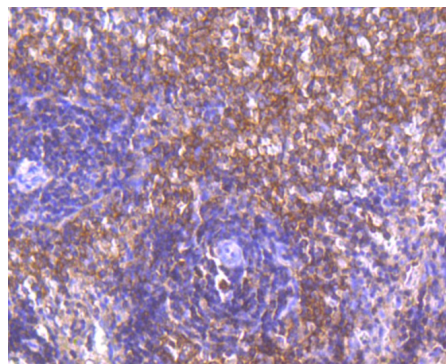
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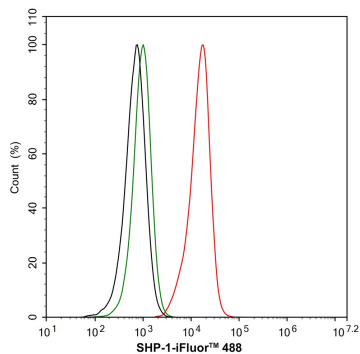
**Fig3:** Immunohistochemical analysis of paraffin-embedded human spleen tissue using anti- SHP1 antibody. Counter stained with hematoxylin.



**Fig4:** Immunohistochemical analysis of paraffin-embedded human tonsil tissue using anti- SHP1 antibody. Counter stained with hematoxylin.



**Fig5:** Immunohistochemical analysis of paraffin-embedded rat spleen tissue using anti- SHP1 antibody. Counter stained with hematoxylin.



**Fig6:** Flow cytometric analysis of RAW264.7 cells labeling SHP1.

Cells were fixed and permeabilized. Then stained with the primary antibody (ER1802-74, 1/1,000) (red) compared with Rabbit IgG Isotype Control (green). After incubation of the primary antibody at +4°C for an hour, the cells were stained with a iFluor™ 488 conjugate-Goat anti-Rabbit IgG Secondary antibody (HA1121) at 1/1,000 dilution for 30 minutes at +4°C. Unlabelled sample was used as a control (cells without incubation with primary antibody; black).

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**Note:** All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".

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### Background References

1. Keilhack H et al. Negative regulation of Ros receptor tyrosine kinase signaling. An epithelial function of the SH2 domain protein tyrosine phosphatase SHP-1. *J Cell Biol* 152:325-334 (2001).
2. Yoshida K et al. Functional interaction between SHPTP1 and the Lyn tyrosine kinase in the apoptotic response to DNA damage. *J Biol Chem* 274:34663-34668 (1999).

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