Anti-SHP1 Antibody [B5-A4]

M1505-4

Product Type:	Mouse monoclonal IgG2b, primary antibodies
Species reactivity:	Human, Mouse, Rat
Applications:	WB, IF-Cell, IHC-P
Molecular Wt:	Predicted band size:68kDa
Clone number:	B5-A4

Description: Tyrosine-protein phosphatase non-receptor type 6, also known as Src homology region 2 domain-containing phosphatase-1 (SHP-1), is an enzyme that in humans is encoded by the PTPN6 gene. SHP1 is a member of the protein tyrosine phosphatase (PTP) family. PTPs are known to be signaling molecules that regulate a variety of cellular processes including cell growth, differentiation, mitotic cycle, and oncogenic transformation. N-terminal part of this PTP contains two tandem Src homolog (SH2) domains, which act as protein phospho-tyrosine binding domains, and mediate the interaction of this PTP with its substrates. This PTP is expressed primarily in hematopoietic cells, and functions as an important regulator of multiple signaling pathways in hematopoietic cells. SHP-1 gene has two promoters - P-1, active in epithelial cells, and P-2, active in hemopoietic cells. In addition the expression of SHP-1 is low in epithelial cells and high in hemopoetic cells. SHP-1 level in epithelial cells increases and in hematopoetic cells decreases in cancer.

Immunogen: Recombinant protein within human SHP1 aa 400-590/595.

Positive control: Mouse tonsil, human tonsil, mouse lymphoid tissue

Subcellular location: Cytoplasm, nucleus

Database links: SwissProt: P29350 Human | P29351 Mouse

Recommended Dilutions:

WB	1:500-1:1,000
IHC-P	1:200
IF-Cell	1:200

Storage Buffer: 1*PBS (pH7.4), 0.2% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.

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

Purity: Protein A affinity purified.

Images

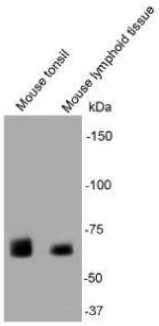

Fig1: Western blot analysis on different tissue lysates using anti-SHP1 mouse mAb.

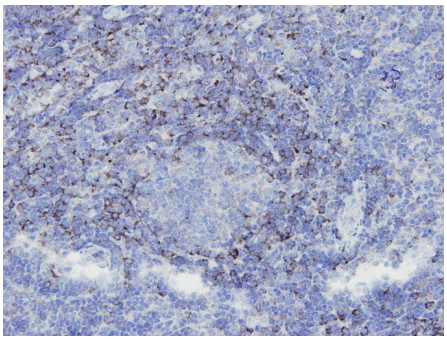

Fig2: Immunohistochemical analysis of paraffin-embedded human tonsil tissue using anti- SHP1 Mouse mAb.

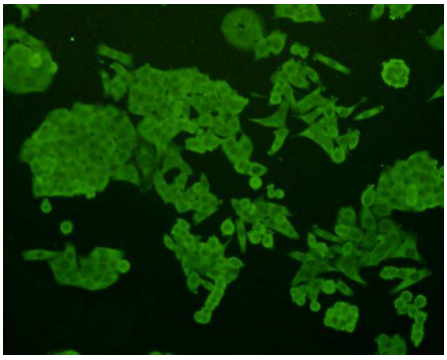

Fig3: ICC staining SHP1 in HCT116 cells (green). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.

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

Background References

1. "Functional interaction between SHPTP1 and the Lyn tyrosine kinase in the apoptotic response to DNA damage." Yoshida K., Kharbanda S., Kufe D. J. Biol. Chem. 274:34663-34668(1999)
2. "Compartmentalized CDK2 is connected with SHP-1 and beta-catenin and regulates insulin internalization." Fiset A., Xu E., Bergeron S., Marette A., Pelletier G., Siminovitch K.A., Olivier M., Beauchemin N., Faure R.L. Cell. Signal. 23:911-919(2011)
3. "Crystal structure of human protein tyrosine phosphatase SHP-1 in the open conformation." Wang W., Liu L., Song X., Mo Y., Komma C., Bellamy H.D., Zhao Z.J., Zhou G.W.J. Cell. Biochem. 112:2062-2071(2011)