

Basic Information

Product Name	Anti-SHP2/PTPN11 Antibody (Clone#2E6)	
Gene Name	PTPN11	
Source	Mouse	
Clonality	Monoclonal	
Isotype	IgG2b	
Species Reactivity	human, mouse, rat	
Tested Application	WB, IHC, ICC/IF, FCM	
Contents	500 ug/ml antibody with PBS, 0.02% NaN3, 1 mg/ml BSA and 50% glycerol.	
Immunogen	A synthetic peptide corresponding to a sequence at the N-terminus of human SHP2, identical to the related mouse and rat sequences.	
Concentration	200ug/ml	
Purification	protein G purified.	
Observed MW	68 kDa	
Dilution Ratios	Western blot (WB):	1:500-2000
	Immunohistochemistry (IHC):	1:50-400
	Immunocytochemistry/Immunofluorescence (ICC/IF):	1:50-400
	Flow Cytometry (Fixed):	1:50-200
	(Boiling the paraffin sections in 10mM citrate buffer,pH6.0,or PH8.0 EDTA repair liquid for 20 mins is required for the staining of formalin/paraffin sections.) Optimal working dilutions must be determined by end user.	

Storage

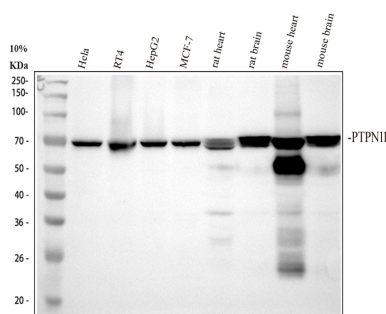
12 months from date of receipt, -20°C as supplied.

Background Information

PTPN11 (Tyrosine-protein phosphatase non-receptor type 11), also known as protein-tyrosine phosphatase 1D (PTP-1D), protein-tyrosine phosphatase 2C (PTP-2C), TYROSINE PHOSPHATASE SHP2 (SHP2), BPTP3, SH-PTP2, SHP-2, SH-PTP3, is an enzyme that in humans is encoded by the PTPN11 gene. PTPN11 is a member of the protein tyrosine phosphatase (PTP) family. The open reading frame consists of 1,779 nucleotides potentially encoding a protein of 593 amino acids with a predicted molecular mass of 68 kD. PTPs are known to be signaling molecules that regulate a variety of cellular processes including cell growth, differentiation, mitotic cycle, and oncogenic transformation. This PTP contains two

tandem Src homology-2 domains, which function as phospho-tyrosine binding domains and mediate the interaction of this PTP with its substrates. This PTP is widely expressed in most tissues and plays a regulatory role in various cell signaling events that are important for a diversity of cell functions, such as mitogenic activation, metabolic control, transcription regulation, and cell migration. Mutations in this gene are a cause of Noonan syndrome as well as acute myeloid leukemia.

Selected Validation Data



Western blot analysis of SHP2/PTPN11 using anti-SHP2/PTPN11 antibody (M00150-2). The sample well of each lane was loaded with 30 ug of sample under reducing conditions.

Lane 1: human HeLa whole cell lysates,

Lane 2: human RT4 whole cell lysates,

Lane 3: human HepG2 whole cell lysates,

Lane 4: human MCF-7 whole cell lysates,

Lane 5: rat heart tissue lysates,

Lane 6: rat brain tissue lysates,

Lane 7: mouse heart tissue lysates,

Lane 8: mouse brain tissue lysates.

After electrophoresis, proteins were transferred to a membrane.

Then the membrane was incubated with mouse anti-SHP2/PTPN11 antigen affinity purified monoclonal antibody (M00150-2) at a dilution of 1:1000 and probed with a goat anti-mouse IgG-HRP secondary antibody (Catalog # BA1050). The signal is developed using ECL Plus Western Blotting Substrate (Catalog # AR1197). A specific band was detected for SHP2/PTPN11 at approximately 68 kDa. The expected band size for SHP2/PTPN11 is at 68 kDa.

Product datasheet
Anti-SHP2/PTPN11 Antibody
(Clone#2E6)
Catalog Number: M00150-2

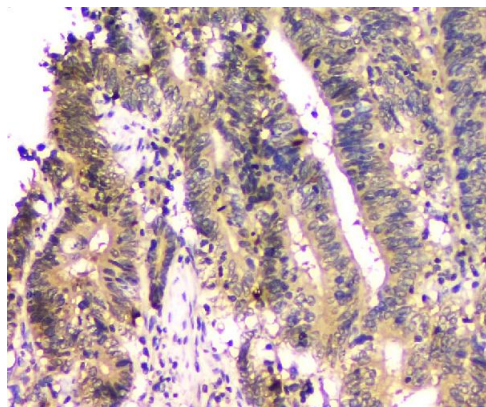
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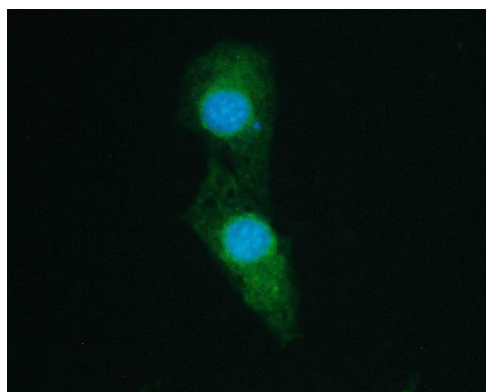
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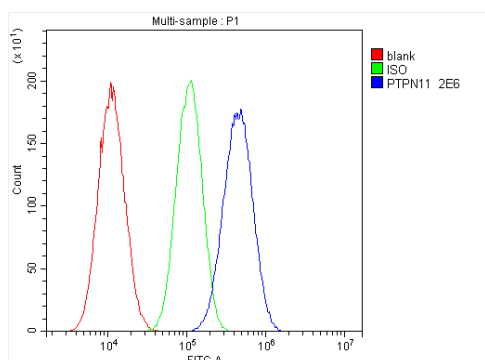


IHC analysis of SHP2/PTPN11 using anti-SHP2/PTPN11 antibody (M00150-2).

SHP2/PTPN11 was detected in a paraffin-embedded section of human colon cancer tissue. Biotinylated goat anti-mouse IgG was used as secondary antibody. The tissue section was incubated with mouse anti-SHP2/PTPN11 Antibody (M00150-2) at a dilution of 1:200 and developed using Streptavidin-Biotin-Complex (SABC) (Catalog # SA1021) with DAB (Catalog # AR1027) as the chromogen.



ICC/IF analysis of SHP2/PTPN11 using anti-SHP2/PTPN11 antibody (M00150-2). SHP2/PTPN11 was detected in immunocytochemical section of U251 cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (AR0022) for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 2µg/mL mouse anti-SHP2/PTPN11 Antibody (M00150-2) overnight at 4°C. Fluoro488 Conjugated Goat Anti-Mouse IgG (BA1126) was used as secondary antibody at 1:100 dilution and incubated for 30 minutes at 37°C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.



Flow cytometry analysis of A549 cell (1:100) Fluoro 488 conjugated goat anti-mouse IgG(blue) was used as secondary antibody. Isotype control antibody (Green line) was mouse IgG Fluoro 488. Unlabelled sample (Red line).