

**Anti-SHP2 Picoband Antibody**  
Catalog # ABO12361

**Specification**

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**Anti-SHP2 Picoband Antibody - Product Information**

Application	WB, IHC
Primary Accession	<a href="#">Q06124</a>
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized

**Description**

Rabbit IgG polyclonal antibody for Tyrosine-protein phosphatase non-receptor type 11(PTPN11) detection. Tested with WB, IHC-P in Human;Mouse;Rat.

**Reconstitution**

Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

**Anti-SHP2 Picoband Antibody - Additional Information**

**Gene ID** 5781

**Other Names**

Tyrosine-protein phosphatase non-receptor type 11, 3.1.3.48, Protein-tyrosine phosphatase 1D, PTP-1D, Protein-tyrosine phosphatase 2C, PTP-2C, SH-PTP2, SHP-2, Shp2, SH-PTP3, PTPN11, PTP2C, SHPTP2

**Calculated MW**

68436 MW KDa

**Application Details**

Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Human, Mouse, Rat, By Heat<br><br>Western blot, 0.1-0.5 µg/ml, Human, Mouse, Rat<br>

**Subcellular Localization**

Cytoplasm.

**Tissue Specificity**

Widely expressed, with highest levels in heart, brain, and skeletal muscle. .

**Protein Name**

Tyrosine-protein phosphatase non-receptor type 11

**Contents**

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na<sub>2</sub>HPO<sub>4</sub>, 0.05mg Na<sub>3</sub>N.

**Immunogen**

A synthetic peptide corresponding to a sequence at the N-terminus of human SHP2 (69-99aa EK<sub>F</sub>ATLAELVQYYMEHHGQLKEKNGDVIELK), identical to the related mouse and rat sequences.

**Purification**

Immunogen affinity purified.

**Cross Reactivity**

No cross reactivity with other proteins

**Storage**

**At -20°C for one year. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for a longer time. Avoid repeated freezing and thawing.**

**Anti-SHP2 Picoband Antibody - Protein Information**

**Name** PTPN11

**Synonyms** PTP2C, SHPTP2

**Function**

Acts downstream of various receptor and cytoplasmic protein tyrosine kinases to participate in the signal transduction from the cell surface to the nucleus (PubMed: [10655584](http://www.uniprot.org/citations/10655584), PubMed: [14739280](http://www.uniprot.org/citations/14739280), PubMed: [18559669](http://www.uniprot.org/citations/18559669), PubMed: [18829466](http://www.uniprot.org/citations/18829466), PubMed: [26742426](http://www.uniprot.org/citations/26742426), PubMed: [28074573](http://www.uniprot.org/citations/28074573)). Positively regulates MAPK signal transduction pathway (PubMed: [28074573](http://www.uniprot.org/citations/28074573)). Dephosphorylates GAB1, ARHGAP35 and EGFR (PubMed: [28074573](http://www.uniprot.org/citations/28074573)). Dephosphorylates ROCK2 at 'Tyr-722' resulting in stimulation of its RhoA binding activity (PubMed: [18559669](http://www.uniprot.org/citations/18559669)). Dephosphorylates CDC73 (PubMed: [26742426](http://www.uniprot.org/citations/26742426)). Dephosphorylates SOX9 on tyrosine residues, leading to inactivate SOX9 and promote ossification (By similarity). Dephosphorylates tyrosine-phosphorylated NEDD9/CAS-L (PubMed: [19275884](http://www.uniprot.org/citations/19275884)).

**Cellular Location**

Cytoplasm. Nucleus

**Tissue Location**

Widely expressed, with highest levels in heart, brain, and skeletal muscle.

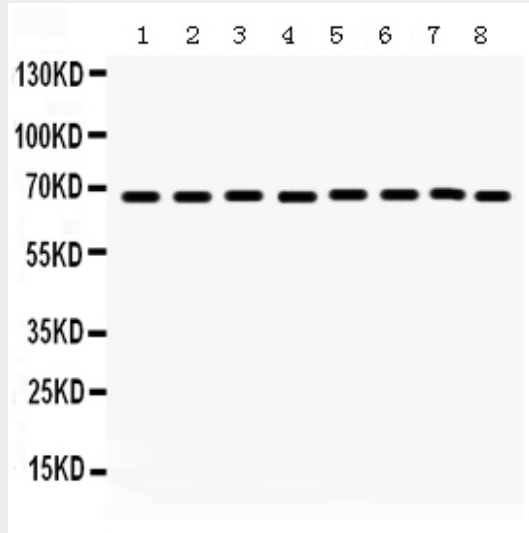
**Anti-SHP2 Picoband Antibody - Protocols**

Provided below are standard protocols that you may find useful for product applications.

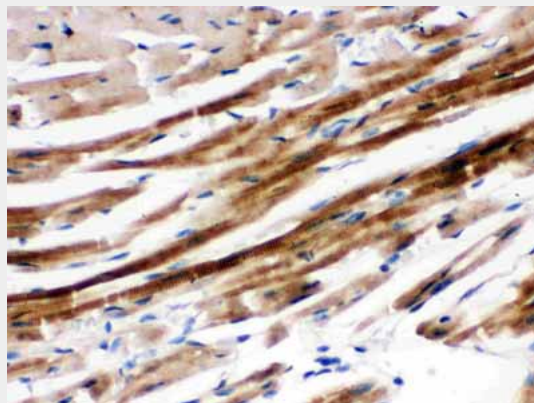
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)

- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

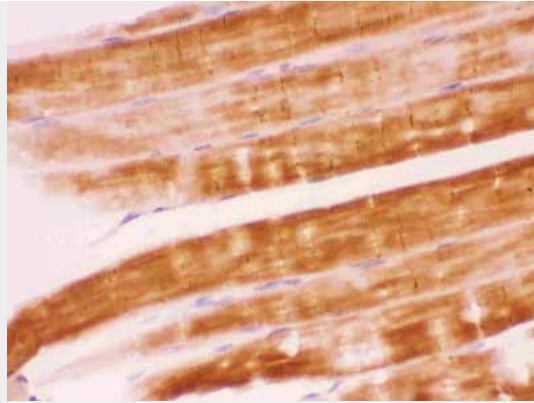
### Anti-SHP2 Picoband Antibody - Images



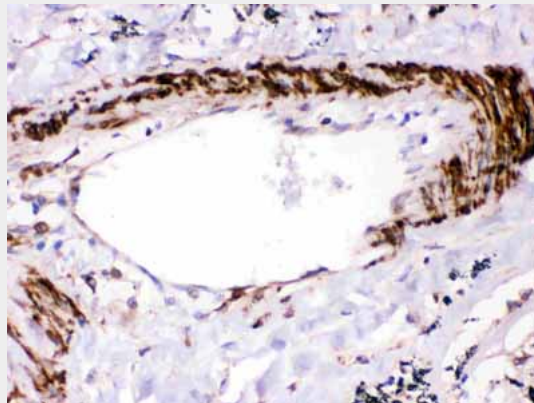
Anti- SHP2 Picoband antibody, ABO12361, Western blotting All lanes: Anti SHP2 (ABO12361) at 0.5ug/ml Lane 1: Rat Brain Tissue Lysate at 50ug Lane 2: Mouse Brain Tissue Lysate at 50ug Lane 3: Rat Cardiac Muscle Tissue Lysate at 50ug Lane 4: Mouse Kidney Tissue Lysate at 50ug Lane 5: HELA Whole Cell Lysate at 40ug Lane 6: SW620 Whole Cell Lysate at 40ug Lane 7: HEPG2 Whole Cell Lysate at 40ug Lane 8: JURKAT Whole Cell Lysate at 40ug Predicted bind size: 68KD Observed bind size: 68KD



Anti- SHP2 Picoband antibody, ABO12361, IHC(P) IHC(P): Mouse Cardiac Muscle Tissue



Anti- SHP2 Picoband antibody, ABO12361,IHC(P)IHC(P): Rat Skeletal Muscle Tissue



Anti- SHP2 Picoband antibody, ABO12361,IHC(P)IHC(P): Human Lung Cancer Tissue

#### **Anti-SHP2 Picoband Antibody - Background**

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.