

**Anti-SHP2 Antibody**  
Catalog # ABO11168

**Specification**

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**Anti-SHP2 Antibody - Product Information**

Application	WB
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 in Human;Mouse;Rat.

**Reconstitution**

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

**Anti-SHP2 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**

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 Thimerosal, 0.05mg NaN<sub>3</sub>.

**Immunogen**

A synthetic peptide corresponding to a sequence at the C-terminus of human SHP2(582-597aa RYVENVGLMQQKSFR), different from the related rat and mouse sequences by one amino acid.

**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.**

**Sequence Similarities**

Belongs to the protein-tyrosine phosphatase family. Non-receptor class 2 subfamily.

**Anti-SHP2 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:<a href="http://www.uniprot.org/citations/10655584" target="\_blank">10655584</a>, PubMed:<a href="http://www.uniprot.org/citations/14739280" target="\_blank">14739280</a>, PubMed:<a href="http://www.uniprot.org/citations/18559669" target="\_blank">18559669</a>, PubMed:<a href="http://www.uniprot.org/citations/18829466" target="\_blank">18829466</a>, PubMed:<a href="http://www.uniprot.org/citations/26742426" target="\_blank">26742426</a>, PubMed:<a href="http://www.uniprot.org/citations/28074573" target="\_blank">28074573</a>). Positively regulates MAPK signal transduction pathway (PubMed:<a href="http://www.uniprot.org/citations/28074573" target="\_blank">28074573</a>). Dephosphorylates GAB1, ARHGAP35 and EGFR (PubMed:<a href="http://www.uniprot.org/citations/28074573" target="\_blank">28074573</a>). Dephosphorylates ROCK2 at 'Tyr-722' resulting in stimulation of its RhoA binding activity (PubMed:<a href="http://www.uniprot.org/citations/18559669" target="\_blank">18559669</a>). Dephosphorylates CDC73 (PubMed:<a href="http://www.uniprot.org/citations/26742426" target="\_blank">26742426</a>). Dephosphorylates SOX9 on tyrosine residues, leading to inactivate SOX9 and promote ossification (By similarity). Dephosphorylates tyrosine-phosphorylated NEDD9/CAS-L (PubMed:<a href="http://www.uniprot.org/citations/19275884" target="\_blank">19275884</a>).

**Cellular Location**

Cytoplasm. Nucleus

**Tissue Location**

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

**Anti-SHP2 Antibody - Protocols**

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

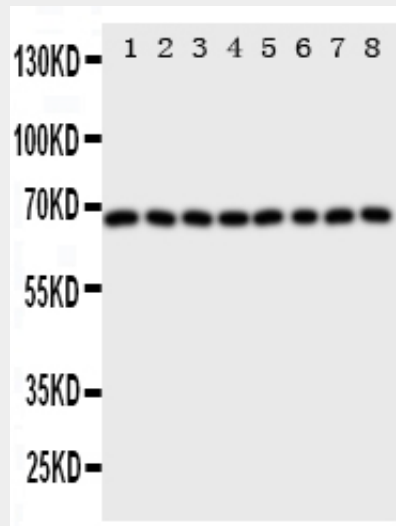
- [Western Blot](#)
- [Blocking Peptides](#)

- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

### Anti-SHP2 Antibody - Images



Anti-SHP2 antibody, ABO11168, Western blotting  
All lanes: Anti SHP2 (ABO11168) at 0.5ug/ml  
Lane 1: Rat Heart Tissue Lysate at 50ug  
Lane 2: Rat Skeletal Muscle Tissue Lysate at 50ug  
Lane 3: Rat Brain Tissue Lysate at 50ug  
Lane 4: HELA Whole Cell Lysate at 40ug  
Lane 5: A549 Whole Cell Lysate at 40ug  
Predicted bind size: 68KD  
Observed bind size: 68KD



Anti-SHP2 antibody, ABO11168, Western blotting  
All lanes: Anti SHP2 (ABO11168) at 0.5ug/ml  
Lane 1: Rat Brain Tissue Lysate at 50ug  
Lane 2: Rat Kidney Tissue Lysate at 50ug  
Lane 3: Rat Heart Tissue Lysate at 50ug  
Lane 4: Rat Skeletal Muscle Tissue Lysate at 50ug  
Lane 5: A431 Whole Cell Lysate at 40ug  
Lane 6: JURKAT Whole Cell Lysate at 40ug  
Lane 7: HELA Whole Cell Lysate at 40ug  
Lane 8: U87 Whole Cell Lysate at 40ug  
Predicted bind size: 68KD  
Observed bind size: 68KD

### Anti-SHP2 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.