

**Phospho-SHP2(Y546) Antibody**  
**Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AW5158**

**Specification**

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**Phospho-SHP2(Y546) Antibody - Product Information**

Application	WB, DB,E
Primary Accession	<a href="#">Q06124</a>
Other Accession	<a href="#">P41499</a> , <a href="#">P35235</a> , <a href="#">Q90687</a>
Reactivity	Human, Mouse
Predicted	Chicken, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	H=68 KDa
Isotype	Rabbit IgG
Antigen Source	HUMAN

**Phospho-SHP2(Y546) Antibody - Additional Information**

**Gene ID** 5781

**Antigen Region**  
521-551

**Other Names**

PTPN11; PTP2C; SHPTP2; Tyrosine-protein phosphatase non-receptor type 11; Protein-tyrosine phosphatase 1D; Protein-tyrosine phosphatase 2C; SH-PTP2; SH-PTP3

**Dilution**

WB~~1:1000  
DB~~1:500

**Target/Specificity**

This SHP2 Antibody is generated from rabbits immunized with a KLH conjugated synthetic phosphopeptide corresponding to amino acid residues surrounding Y546 of human SHP2.

**Format**

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

**Storage**

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**

Phospho-SHP2(Y546) Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

**Phospho-SHP2(Y546) 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

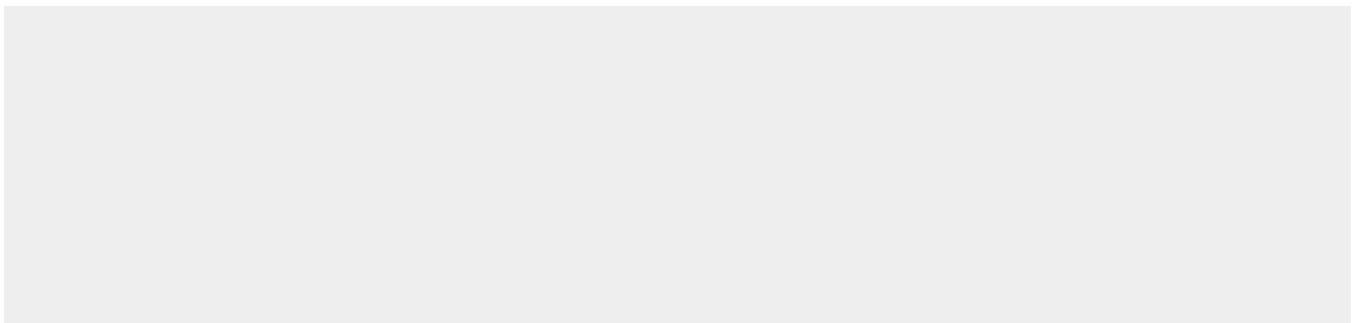
Widely expressed, with highest levels in heart, brain, and skeletal muscle.

### Phospho-SHP2(Y546) Antibody - Protocols

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

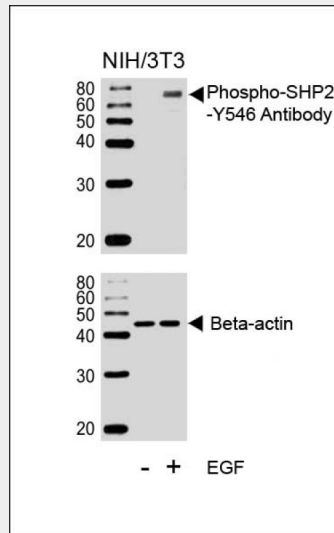
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

### Phospho-SHP2(Y546) Antibody - Images

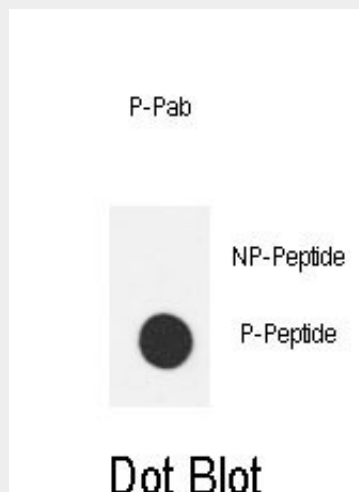




Western blot analysis of lysate from NIH/3T3 cell line, using Phospho-SHP2-Y546 Antibody(Cat. #AW5158). AW5158 was diluted at 1:1000. A goat anti-rabbit IgG H&L(HRP) at 1:10000 dilution was used as the secondary antibody. Lysate at 20ug.



Western blot analysis of lysates from NIH/3T3 cell line, untreated or treated with EGF, 100ng/ml, using Phospho-SHP2-Y546 Antibody(EV)(upper) or Beta-actin (lower).



Dot blot analysis of anti-Phospho-SHP2-Y546 Phospho-specific Pab (Cat. #AW5158 ) on nitrocellulose membrane. 50ng of Phospho-peptide or Non Phospho-peptide per dot were adsorbed. Antibody working concentrations are 0.5ug per ml.

### **Phospho-SHP2(Y546) Antibody - Background**

SHP2 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. 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.

### **Phospho-SHP2(Y546) Antibody - References**

Nystrom,A.M., et.al., Eur J Med Genet (2010) In press  
Carver,K.C., et.al., J. Biol. Chem. 285 (11), 8003-8012 (2010)