

**Goat Anti-SHP2 / PTPN11 Antibody**  
Peptide-affinity purified goat antibody  
Catalog # AF1988a

### Specification

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#### Goat Anti-SHP2 / PTPN11 Antibody - Product Information

Application	WB, IHC
Primary Accession	<a href="#">Q06124</a>
Other Accession	<a href="#">NP_002825</a> , <a href="#">5781</a> , <a href="#">19247 (mouse)</a> , <a href="#">25622 (rat)</a>
Reactivity	Human, Mouse
Predicted	Rat, Pig
Host	Goat
Clonality	Polyclonal
Concentration	100ug/200ul
Isotype	IgG
Calculated MW	68011

#### Goat Anti-SHP2 / PTPN11 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

#### Format

0.5 mg IgG/ml in Tris saline (20mM Tris pH7.3, 150mM NaCl), 0.02% sodium azide, with 0.5% bovine serum albumin

#### Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

#### Precautions

Goat Anti-SHP2 / PTPN11 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

#### Goat Anti-SHP2 / PTPN11 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

<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.

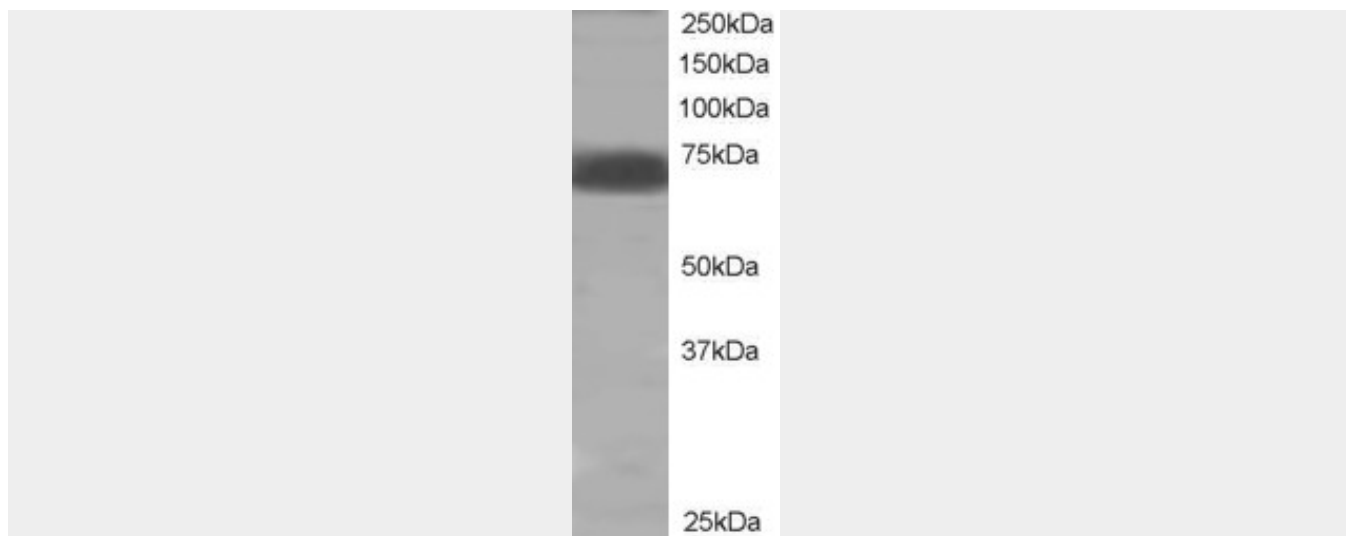
### Goat Anti-SHP2 / PTPN11 Antibody - Protocols

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

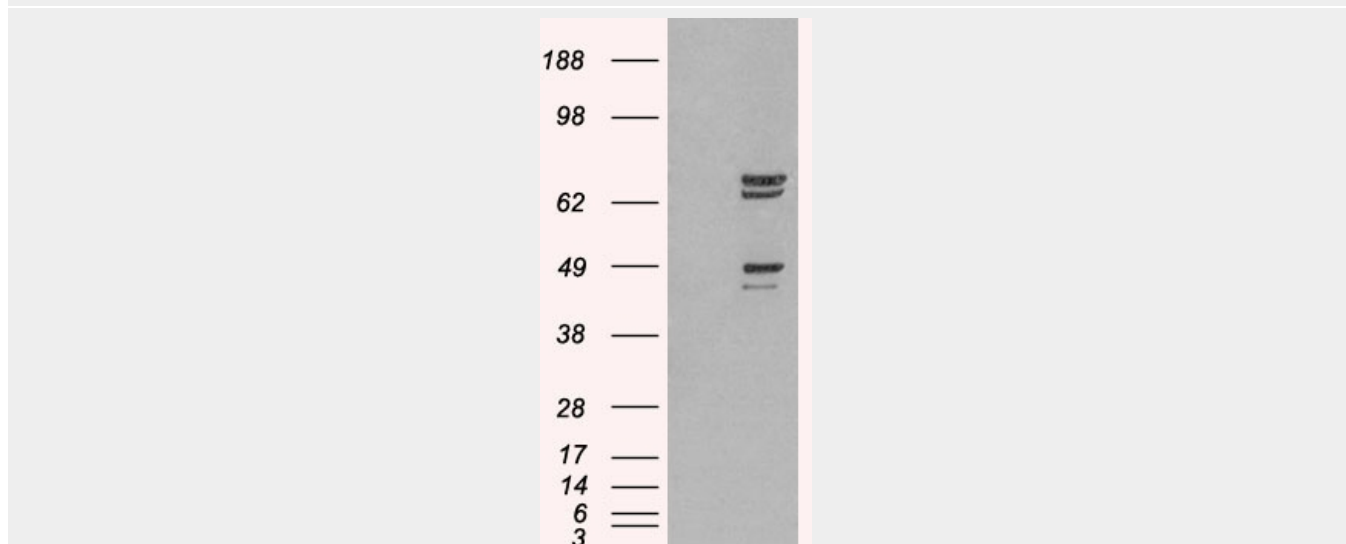
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

### Goat Anti-SHP2 / PTPN11 Antibody - Images





AF1988a staining (2  $\mu\text{g}/\text{ml}$ ) of human muscle lysate (RIPA buffer, 35  $\mu\text{g}$  total protein per lane). Primary incubated for 1 hour. Detected by western blot using chemiluminescence.



HEK293 overexpressing PTPN11 (RC220029) and probed with AF1988a (mock transfection in first lane), tested by Origene.



AF1988a (3.8  $\mu\text{g}/\text{ml}$ ) staining of paraffin embedded Human Cerebellum Steamed antigen retrieval with citrate buffer pH 6, AP-staining.

#### Goat Anti-SHP2 / PTPN11 Antibody - Background

The protein encoded by this gene 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. Mutations in this gene are a cause of Noonan syndrome as well as acute myeloid leukemia.

#### **Goat Anti-SHP2 / PTPN11 Antibody - References**

[Expression and its clinical significance of SHP2 in non-small cell lung cancer] Tang C, et al. Zhongguo Fei Ai Za Zhi, 2010 Feb. PMID 20673499.

Maternal genes and facial clefts in offspring: a comprehensive search for genetic associations in two population-based cleft studies from Scandinavia. Jugessur A, et al. PLoS One, 2010 Jul 9. PMID 20634891.

The language phenotype of children and adolescents with Noonan syndrome. Pierpont EI, et al. J Speech Lang Hear Res, 2010 Aug. PMID 20543023.

Integrin beta4 attenuates SHP-2 and MAPK signaling and reduces human lung endothelial inflammatory responses. Chen W, et al. J Cell Biochem, 2010 Jun 1. PMID 20512931.

Importance of protein-tyrosine phosphatase-alpha catalytic domains for interactions with SHP-2 and interleukin-1-induced matrix metalloproteinase-3 expression. Wang Q, et al. J Biol Chem, 2010 Jul 16. PMID 20472558.