

**SHP2 Antibody**  
**Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP8471A**

**Specification**

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**SHP2 Antibody - Product Information**

Application	IF, WB,E
Primary Accession	<a href="#">Q06124</a>
Other Accession	<a href="#">NP_002825</a>
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG

**SHP2 Antibody - Additional Information**

**Gene ID** 5781

**Other Names**

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

**Target/Specificity**

This SHP2 antibody is generated from rabbits immunized with a recombinant protein of partial human SHP2.

**Dilution**

IF~~1:10~50  
WB~~1:1000-2000  
E~~Use at an assay dependent concentration.

**Format**

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.

**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**

SHP2 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

**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:[10655584](#), PubMed:[14739280](#), PubMed:[18559669](#), PubMed:[18829466](#), PubMed:[26742426](#), PubMed:[28074573](#)). Positively regulates MAPK signal transduction pathway (PubMed:[28074573](#)). Dephosphorylates GAB1, ARHGAP35 and EGFR (PubMed:[28074573](#)). Dephosphorylates ROCK2 at 'Tyr-722' resulting in stimulation of its RhoA binding activity (PubMed:[18559669](#)). Dephosphorylates CDC73 (PubMed:[26742426](#)). Dephosphorylates SOX9 on tyrosine residues, leading to inactivate SOX9 and promote ossification (By similarity). Dephosphorylates tyrosine-phosphorylated NEDD9/CAS-L (PubMed:[19275884](#)).

#### Cellular Location

Cytoplasm. Nucleus

#### Tissue Location

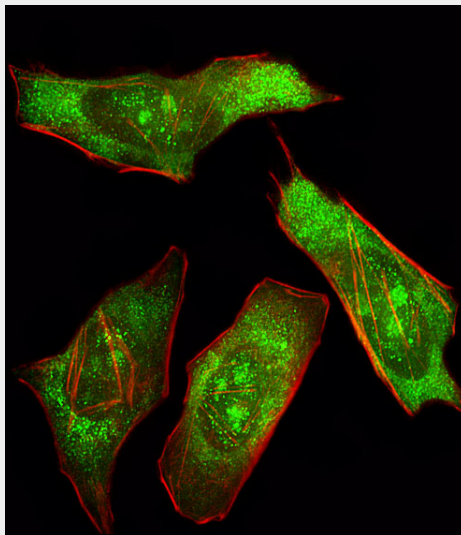
Widely expressed, with highest levels in heart, brain, and skeletal muscle.

### SHP2 Antibody - Protocols

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

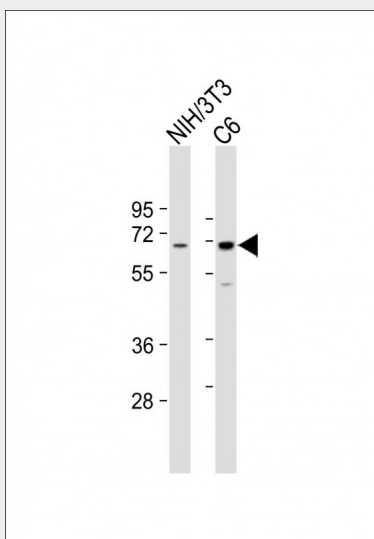
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

### SHP2 Antibody - Images



Fluorescent image of HeLa cell stained with SHP2 Antibody (Cat#AP8471a/SH050329B). HeLa cells were fixed with 4% PFA (20 min), permeabilized with Triton X-100 (0.1%, 10 min), then incubated with SHP2 primary antibody (1:25, 1 h at 37°C). For secondary antibody, Alexa Fluor® 488 conjugated donkey anti-rabbit antibody (green) was used (1:400, 50 min at 37°C). Cytoplasmic actin was counterstained with Alexa Fluor® 555 (red) conjugated Phalloidin (7 units/ml, 1 h at 37°C). SHP2 immunoreactivity is localized to Nucleolus and Cytoplasm significantly and Nucleus

weakly.



All lanes : Anti-SHP2 Antibody at 1:1000-2000 dilution Lane 1: NIH/3T3 whole cell lysate Lane 2: C6 whole cell lysate Lysates/proteins at 20  $\mu$ g per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 68 kDa Blocking/Dilution buffer: 5% NFDN/TBST.

### SHP2 Antibody - Background

SHP2, also known as PTPN11, 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 the gene are a cause of Noonan syndrome as well as acute myeloid leukemia.

### SHP2 Antibody - References

- Chan, R.J., et al., Blood 105(9):3737-3742 (2005).
- Sturla, L.M., et al., J. Biol. Chem. 280(15):14597-14604 (2005).
- Loh, M.L., et al., Leuk. Res. 29(4):459-462 (2005).
- Wang, Q., et al., J. Biol. Chem. 280(9):8397-8406 (2005).
- Niihori, T., et al., J. Hum. Genet. 50(4):192-202 (2005).