

**SHP2 Antibody (Y546)**  
**Affinity Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP8471e****Specification**

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

Application	WB, IHC-P, FC,E
Primary Accession	<a href="#">Q06124</a>
Other Accession	<a href="#">P41499</a> , <a href="#">P35235</a> , <a href="#">Q90687</a> , <a href="#">NP_002825</a>
Reactivity	Human
Predicted	Chicken, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Antigen Region	526-551

**SHP2 Antibody (Y546) - 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 KLH conjugated synthetic peptide between 526-551 amino acids from human SHP2.

**Dilution**WB~~1:1000  
IHC-P~~1:50~100  
FC~~1:10~50**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**

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

**SHP2 Antibody (Y546) - 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

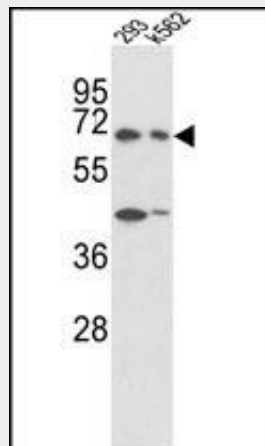
**Tissue Location**

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

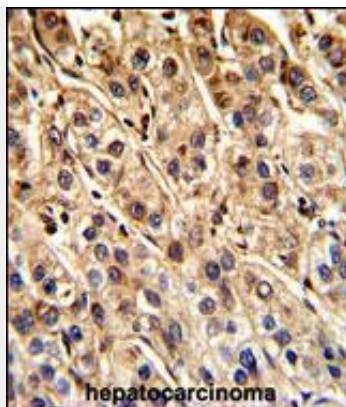
**SHP2 Antibody (Y546) - Protocols**

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

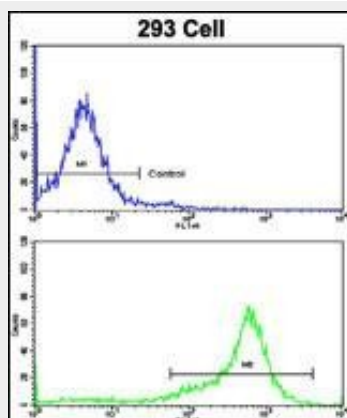
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

**SHP2 Antibody (Y546) - Images**

Western blot analysis of SHP2 Antibody (Y546) (Cat. #AP8471e) in 293, K562 cell line lysates (35ug/lane). SHP2 (arrow) was detected using the purified Pab.



Formalin-fixed and paraffin-embedded human hepatocarcinoma reacted with SHP2 Antibody (Y546), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.



Flow cytometric analysis of 293 cells using SHP2 Antibody (Y546)(bottom histogram) compared to a negative control cell (top histogram). FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

### **SHP2 Antibody (Y546) - 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 (Y546) - 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).

### **SHP2 Antibody (Y546) - Citations**

- [Gene expression profiling-derived immunohistochemistry signature with high prognostic value in colorectal carcinoma.](#)

