

**SHP2 Antibody (Y546) Blocking peptide**  
**Synthetic peptide**  
**Catalog # BP8471e****Specification**

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

Primary Accession [O06124](#)  
Other Accession [NP\\_002825](#)

**SHP2 Antibody (Y546) Blocking peptide - 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**

The synthetic peptide sequence used to generate the antibody [AP8471e](/products/AP8471e) was selected from the region of human Phospho-SHP2-Y546. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

**Format**

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

**Storage**

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

**Precautions**

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

**SHP2 Antibody (Y546) Blocking peptide - 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](http://www.uniprot.org/citations/10655584), PubMed: [18559669](http://www.uniprot.org/citations/18559669), PubMed: [18829466](http://www.uniprot.org/citations/18829466), PubMed: [26742426](http://www.uniprot.org/citations/26742426), PubMed: [28074573](http://www.uniprot.org/citations/28074573)). Positively regulates MAPK signal transduction pathway (PubMed: [28074573](#)).

[28074573](http://www.uniprot.org/citations/28074573)). Dephosphorylates GAB1, ARHGAP35 and EGFR (PubMed:[28074573](http://www.uniprot.org/citations/28074573)). Dephosphorylates ROCK2 at 'Tyr-722' resulting in stimulation of its RhoA binding activity (PubMed:[18559669](http://www.uniprot.org/citations/18559669)). Dephosphorylates CDC73 (PubMed:[26742426](http://www.uniprot.org/citations/26742426)). Dephosphorylates SOX9 on tyrosine residues, leading to inactivate SOX9 and promote ossification (By similarity). Dephosphorylates tyrosine-phosphorylated NEDD9/CAS-L (PubMed:[19275884](http://www.uniprot.org/citations/19275884)).

#### **Cellular Location**

Cytoplasm. Nucleus

#### **Tissue Location**

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

### **SHP2 Antibody (Y546) Blocking peptide - Protocols**

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

- [Blocking Peptides](#)

### **SHP2 Antibody (Y546) Blocking peptide - Images**

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