

**Phospho-SHP2(Y546) Antibody Blocking peptide**  
**Synthetic peptide**  
**Catalog # BP3678a****Specification**

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**Phospho-SHP2(Y546) Antibody Blocking peptide - Product Information**Primary Accession [Q06124](#)**Phospho-SHP2(Y546) Antibody 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 [AP3678a](/products/AP3678a) 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.

**Phospho-SHP2(Y546) Antibody 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](http://www.uniprot.org/citations/28074573)).

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 Blocking peptide - Protocols**

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

- [Blocking Peptides](#)

**Phospho-SHP2(Y546) Antibody Blocking peptide - Images****Phospho-SHP2(Y546) Antibody Blocking peptide - 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 Blocking peptide - References**

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