

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

Phospho-SHP2(Y546) Antibody Blocking peptide - Product InformationPrimary 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: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.

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)