

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

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).