

SHP2 Antibody (Y584) Blocking Peptide
Synthetic peptide
Catalog # BP8471d**Specification**

SHP2 Antibody (Y584) Blocking Peptide - Product InformationPrimary Accession
Other Accession[O06124](#)
[NP_002825](#)**SHP2 Antibody (Y584) 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 [AP8471d](/products/AP8471d) was selected from the Y584 region of human SHP2. 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 (Y584) 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: [14739280](http://www.uniprot.org/citations/14739280), 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). 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 (Y584) Blocking Peptide - Protocols

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

- [Blocking Peptides](#)

SHP2 Antibody (Y584) Blocking Peptide - Images**SHP2 Antibody (Y584) 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 (Y584) 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).