

Phospho-SHP2 (Y584) Antibody
Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP3716a

Specification

Phospho-SHP2 (Y584) Antibody - Product Information

Application	WB, DB, E
Primary Accession	Q06124
Other Accession	P41499 , P35235
Reactivity	Human
Predicted	Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG

Phospho-SHP2 (Y584) Antibody - 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

This SHP2 Antibody is generated from rabbits immunized with a KLH conjugated synthetic phosphopeptide corresponding to amino acid residues surrounding Y584 of human SHP2.

Dilution

WB~~1:2000

DB~~1:500

E~~Use at an assay dependent concentration.

Format

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

Phospho-SHP2 (Y584) Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Phospho-SHP2 (Y584) Antibody - 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](#), PubMed:[14739280](#), PubMed:[18559669](#), PubMed:[18829466](#), PubMed:[26742426](#), PubMed:[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

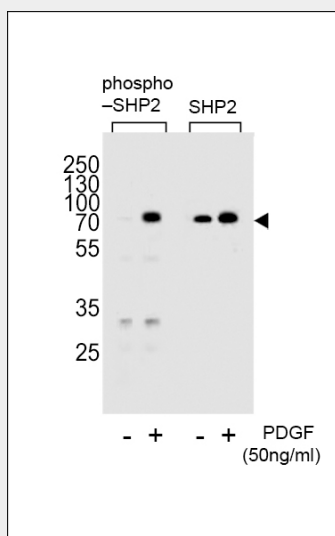
Widely expressed, with highest levels in heart, brain, and skeletal muscle.

Phospho-SHP2 (Y584) Antibody - Protocols

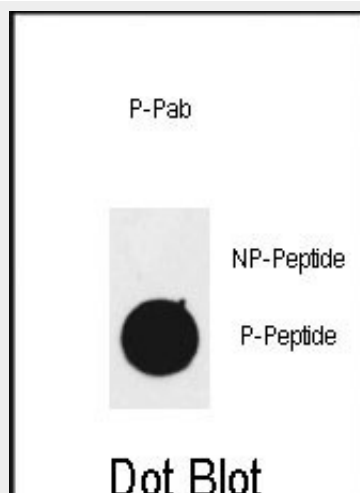
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Phospho-SHP2 (Y584) Antibody - Images



Western blot analysis of lysate from NIH-3T3 cells (from left to right), untreated or treated with PDGF at 50ng/mL, using Phospho-SHP2 (Y584) Antibody (Cat. #AP3716a) or SHP2 Antibody. Lysate at 15ug per lane. AP3716a was diluted at 1:2000 dilution at each lane. A goat anti-rabbit IgG H&L (HRP) at 1:5000 dilution was used as the secondary antibody.



Dot blot analysis of anti-Phospho-SHP2-pY584 Phospho-specific Pab (Cat. #AP3716a) on nitrocellulose membrane. 50ng of Phospho-peptide or Non Phospho-peptide per dot were adsorbed. Antibody working concentrations are 0.5ug per mL.

Phospho-SHP2 (Y584) Antibody - 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 (Y584) Antibody - References

Carver, K.C., et al. J. Biol. Chem. 285(11):8003-8012(2010)
Pierpont, E.I., et al. Am. J. Med. Genet. A 152A (3), 591-600 (2010)
Rani, D.S., et al. Mitochondrion 10(2):166-173(2010)
Bakken, T., et al. Virology 397(2):379-388(2010)