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Phospho-SHP2(Y584) Antibody
Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AW5224

Specification

Phospho-SHP2(Y584) Antibody - Product Information

Application	**DB, WB,E**
Primary Accession	Q06124
Other Accession	P41499, P35235
Reactivity	**Human**
Host	**Rabbit**
Clonality	**Polyclonal**
Calculated MW	**H=45 KDa**
Isotype	**Rabbit IgG**
Antigen Source	**HUMAN**

Phospho-SHP2(Y584) Antibody - Additional Information

Gene ID 5781

Antigen Region
574-590

Other Names
PTPN11; PTP2C; SHPTP2; Tyrosine-protein phosphatase non-receptor type 11; Protein-tyrosine phosphatase 1D; Protein-tyrosine phosphatase 2C; SH-PTP2; SH-PTP3

Dilution
DB~~1:500
WB~~1:1000

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.

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

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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 Cytomety
- Cell Culture

Phospho-SHP2(Y584) Antibody - Images

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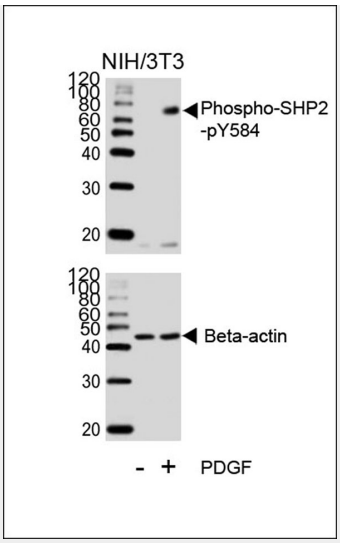
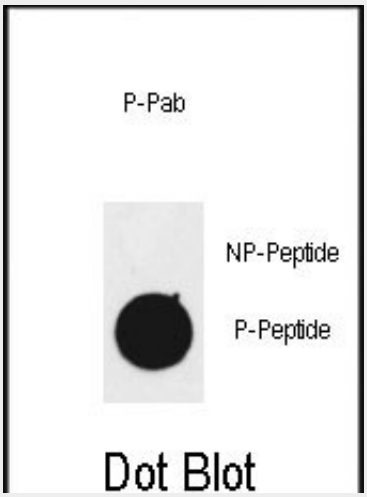


Western blot analysis of lysates from mouse NIH/3T3 cell line,untreated or treated with PDGF,using Phospho-SHP2-pY584(Cat. #AW5224)(upper) or Beta-actin (lower).



Dot blot analysis of anti-Phospho-SHP2-pY584 Phospho-specific Pab (Cat. #AW5224) 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)