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Phospho-SHP2(Y584) Antibody

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AW5224

Product Information

Application	DB, WB
Primary Accession	Q06124
Other Accession	P41499, P35235
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Calculated MW	68011
Isotype	Rabbit IgG
Antigen Source	HUMAN

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.

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.

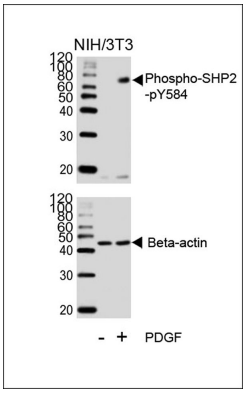
Background

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.

References

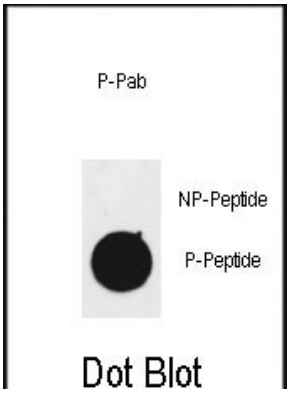
Carver, K.C., et al. J. Biol. Chem. 285(11):8003-8012(2010)
Pierpont, E.I., et al. Am. J. Med. Genet. A 152A (3), 591-600 (2010)
Rani, D.S., et al. Mitochondrion 10(2):166-173(2010)
Bakken, T., et al. Virology 397(2):379-388(2010)

Images



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.



Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.