

Phospho-SHP2(Y546) Antibody
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AW5158

Specification

Phospho-SHP2(Y546) Antibody - Product Information

Application	WB, DB,E
Primary Accession	Q06124
Other Accession	P41499 , P35235 , Q90687
Reactivity	Human, Mouse
Predicted	Chicken, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	H=68 KDa
Isotype	Rabbit IgG
Antigen Source	HUMAN

Phospho-SHP2(Y546) Antibody - Additional Information

Gene ID 5781

Antigen Region
521-551

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

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

Target/Specificity

This SHP2 Antibody is generated from rabbits immunized with a KLH conjugated synthetic phosphopeptide corresponding to amino acid residues surrounding Y546 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(Y546) Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Phospho-SHP2(Y546) 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

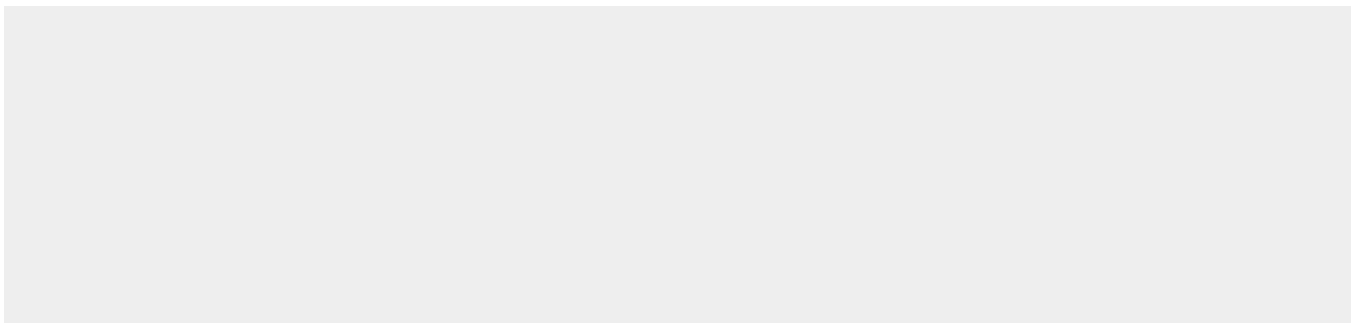
Widely expressed, with highest levels in heart, brain, and skeletal muscle.

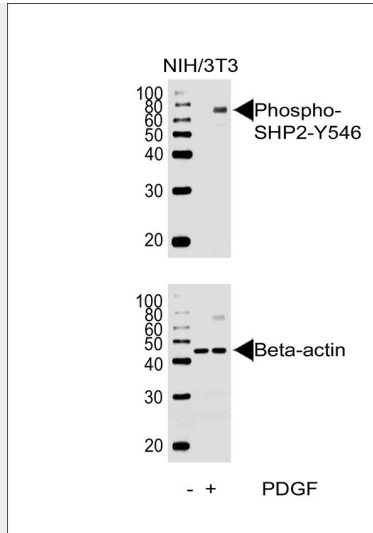
Phospho-SHP2(Y546) Antibody - Protocols

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

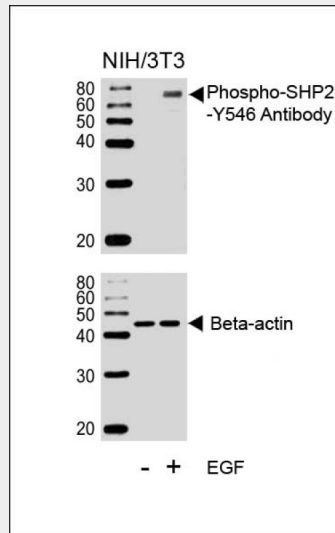
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Phospho-SHP2(Y546) Antibody - Images

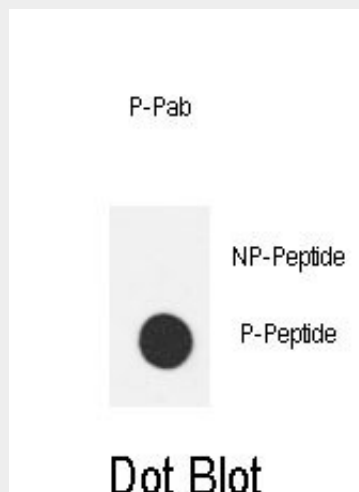




Western blot analysis of lysate from NIH/3T3 cell line, using Phospho-SHP2-Y546 Antibody(Cat. #AW5158). AW5158 was diluted at 1:1000. A goat anti-rabbit IgG H&L(HRP) at 1:10000 dilution was used as the secondary antibody. Lysate at 20ug.



Western blot analysis of lysates from NIH/3T3 cell line, untreated or treated with EGF, 100ng/ml, using Phospho-SHP2-Y546 Antibody(EV)(upper) or Beta-actin (lower).



Dot blot analysis of anti-Phospho-SHP2-Y546 Phospho-specific Pab (Cat. #AW5158) 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(Y546) 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(Y546) Antibody - References

Nystrom,A.M., et.al., Eur J Med Genet (2010) In press
Carver,K.C., et.al., J. Biol. Chem. 285 (11), 8003-8012 (2010)