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Anti-SHP2 Antibody
Catalog # ABO11168

Specification

Anti-SHP2 Antibody - Product Information

Application	**WB**
Primary Accession	Q06124
Host	**Rabbit**
Reactivity	**Human, Mouse, Rat**
Clonality	**Polyclonal**
Format	**Lyophilized**

Description
Rabbit IgG polyclonal antibody for Tyrosine-protein phosphatase non-receptor type 11(PTPN11) detection. Tested with WB in Human;Mouse;Rat.

Reconstitution
Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-SHP2 Antibody - Additional Information

Gene ID 5781

Other Names
Tyrosine-protein phosphatase non-receptor type 11, 3.1.3.48, Protein-tyrosine phosphatase 1D, PTP-1D, Protein-tyrosine phosphatase 2C, PTP-2C, SH-PTP2, SHP-2, Shp2, SH-PTP3, PTPN11, PTP2C, SHPTP2

Calculated MW
68436 MW KDa

Application Details
Western blot, 0.1-0.5 µg/ml, Human, Mouse, Rat

Subcellular Localization
Cytoplasm.

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

Protein Name
Tyrosine-protein phosphatase non-receptor type 11

Contents
Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg Thimerosal, 0.05mg NaN3.

Immunogen
A synthetic peptide corresponding to a sequence at the C-terminus of human SHP2(582-597aa RVYENVGLMQQQKSFR), different from the related rat and mouse sequences by one amino acid.

Purification
Immunogen affinity purified.

Cross Reactivity
No cross reactivity with other proteins

Storage	**At -20˚C for one year. After r˚Constitution, at 4˚C for one month. It˚Can also be aliquotted and stored frozen at -20˚C for a longer time.Avoid repeated freezing and thawing.**

Sequence Similarities
Belongs to the protein-tyrosine phosphatase family. Non-receptor class 2 subfamily.

Anti-SHP2 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: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.

Anti-SHP2 Antibody - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot

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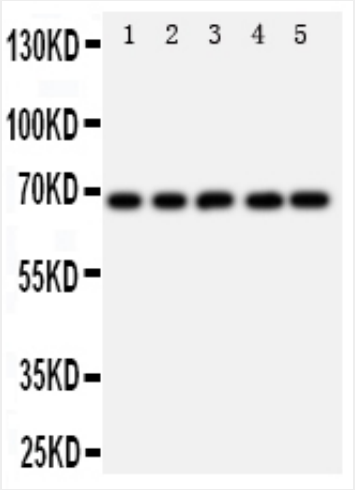
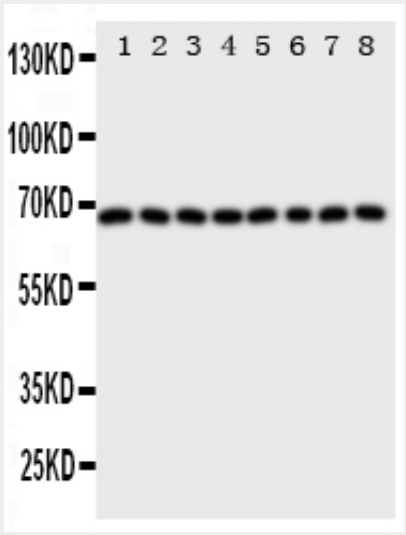
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Anti-SHP2 Antibody - Images



Anti-SHP2 antibody, ABO11168, Western blottingAll lanes: Anti SHP2 (ABO11168) at 0.5ug/mlLane 1: Rat Heart Tissue Lysate at 50ugLane 2: Rat Skeletal Muscle Tissue Lysate at 50ugLane 3: Rat Brain Tissue Lysate at 50ugLane 4: HELA Whole Cell Lysate at 40ugLane 5: A549 Whole Cell Lysate at 40ugPredicted bind size: 68KDObserved bind size: 68KD



Anti-SHP2 antibody, ABO11168, Western blottingLAll lanes: Anti SHP2 (ABO11168) at 0.5ug/mlLane 1: Rat Brain Tissue Lysate at 50ugLane 2: Rat Kidney Tissue Lysate at 50ugLane 3: Rat Heart Tissue Lysate at 50ugLane 4: Rat Skeletal Muscle Tissue Lysate at 50ugLane 5: A431 Whole Cell Lysate at 40ugLane 6: JURKAT Whole Cell Lysate at 40ugLane 7: HELA Whole Cell Lysate at 40ugLane 8: U87 Whole Cell Lysate at 40ugPredicted bind size: 68KDObserved bind size: 68KD

Anti-SHP2 Antibody - Background

PTPN11(Tyrosine-protein phosphatase non-receptor type 11), also known as protein-tyrosine

phosphatase 1D(PTP-1D),Â protein-tyrosine phosphatase 2C(PTP-2C), TYROSINE PHOSPHATASE SHP2(SHP2), BPTP3, SH-PTP2, SHP-2, SH-PTP3, is anÂ enzymeÂ that in humans is encoded by theÂ PTPN11Â gene. PTPN11 is a member of the protein tyrosine phosphatase(PTP) family. The open reading frame consists of 1,779 nucleotides potentially encoding a protein of 593 amino acids with a predicted molecular mass of 68 kD. 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 this gene are a cause ofÂ Noonan syndromeÂ as well as acute myeloid leukemia.