

Anti-SHP2 Antibody
Catalog # ABO10572

Specification

Anti-SHP2 Antibody - Product Information

Application	WB, IHC
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, IHC-P 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

Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Human, Mouse, Rat, By Heat
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(578-592aa EDSARVYENVGLMQQ), identical to the related rat and mouse sequences.

Purification

Immunogen affinity purified.

Cross Reactivity

No cross reactivity with other proteins

Storage

At -20°C for one year. After reconstitution, 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](http://www.uniprot.org/citations/10655584), PubMed:[14739280](http://www.uniprot.org/citations/14739280), PubMed:[18559669](http://www.uniprot.org/citations/18559669), PubMed:[18829466](http://www.uniprot.org/citations/18829466), PubMed:[26742426](http://www.uniprot.org/citations/26742426), PubMed:[28074573](http://www.uniprot.org/citations/28074573)). Positively regulates MAPK signal transduction pathway (PubMed:[28074573](http://www.uniprot.org/citations/28074573)). Dephosphorylates GAB1, ARHGAP35 and EGFR (PubMed:[28074573](http://www.uniprot.org/citations/28074573)). Dephosphorylates ROCK2 at 'Tyr-722' resulting in stimulation of its RhoA binding activity (PubMed:[18559669](http://www.uniprot.org/citations/18559669)). Dephosphorylates CDC73 (PubMed:[26742426](http://www.uniprot.org/citations/26742426)). Dephosphorylates SOX9 on tyrosine residues, leading to inactivate SOX9 and promote ossification (By similarity). Dephosphorylates tyrosine-phosphorylated NEDD9/CAS-L (PubMed:[19275884](http://www.uniprot.org/citations/19275884)).

Cellular Location

Cytoplasm. Nucleus

Tissue Location

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

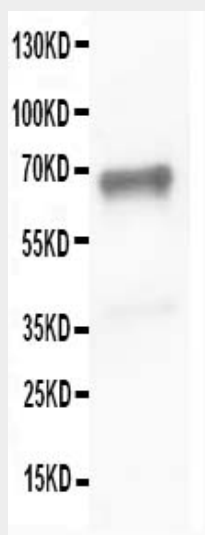
Anti-SHP2 Antibody - Protocols

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

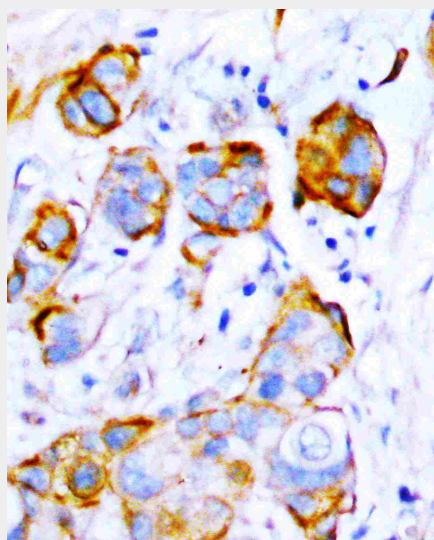
- [Western Blot](#)
- [Blocking Peptides](#)

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

Anti-SHP2 Antibody - Images



Anti-SHP2 antibody, ABO10572, Western blottingWB: JURKAT Cell Lysate



Anti-SHP2 antibody, ABO10572, IHC(P)IHC(P): Human Thyroid Cancer Tissue

Anti-SHP2 Antibody - Background

The tyrosine phosphatase Shp2 is recruited into tyrosine-kinase signalling pathways through binding of its two amino-terminal SH2 domains to specific phosphotyrosine motifs, concurrent with its re-localization and stimulation of phosphatase activity. Shp2 can potentiate signalling through the MAP-kinase pathway and is required during early mouse development for gastrulation. Shp2 is specifically required in mesenchyme cells of the progress zone(PZ), directly beneath the distal ectoderm of the limb bud. Rather than integrating proliferative signals, Shp2 probably exerts its effects on limb development by influencing cell shape, movement or adhesion. Furthermore, the

branchial arches, which also use Fgfs during bud outgrowth, similarly require Shp2. Thus, Shp2 regulates phosphotyrosine-signalling events during the complex ectodermal-mesenchymal interactions that regulate mammalian budding morphogenesis.