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SHP2 Antibody
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP8471A

Specification

SHP2 Antibody - Product Information

Application	**IF, WB,E**
Primary Accession	Q06124
Other Accession	NP_002825
Reactivity	**Human, Mouse**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**

SHP2 Antibody - Additional Information

Gene ID 5781

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

Target/Specificity
This SHP2 antibody is generated from rabbits immunized with a recombinant protein of partial human SHP2.

Dilution
IF~~1:10~50
WB~~1:1000-2000

Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.

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
SHP2 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

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: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

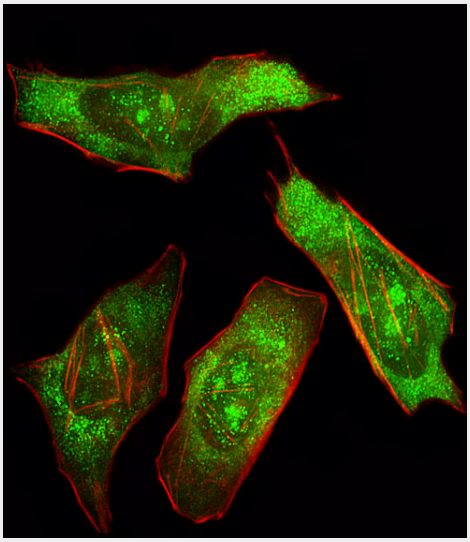
Tissue Location
Widely expressed, with highest levels in heart, brain, and skeletal muscle.

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 Cytomety
- Cell Culture

SHP2 Antibody - Images



Fluorescent image of Hela cell stained with SHP2 Antibody(Cat#AP8471a/SH050329B).Hela cells were fixed with 4% PFA (20 min), permeabilized with Triton X-100 (0.1%, 10 min), then incubated with SHP2 primary antibody (1:25, 1 h at 37℃). For secondary antibody, Alexa Fluor® 488 conjugated donkey anti-rabbit antibody (green) was used (1:400, 50 min at 37℃).Cytoplasmic actin was counterstained with Alexa Fluor® 555 (red) conjugated Phalloidin (7units/ml, 1 h at 37℃).SHP2 immunoreactivity is localized to Nucleolus and Cytoplasm significantly and Nucleus weakly.

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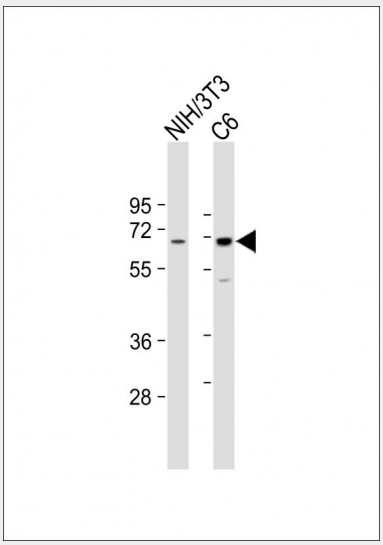

All lanes : Anti-SHP2 Antibody at 1:1000-2000 dilution Lane 1: NIH/3T3 whole cell lysate Lane 2: C6 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 68 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

SHP2 Antibody - Background

SHP2, also known as PTPN11, 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. Mutations in the gene are a cause of Noonan syndrome as well as acute myeloid leukemia.

SHP2 Antibody - References

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Loh, M.L., et al., Leuk. Res. 29(4):459-462 (2005).
Wang, Q., et al., J. Biol. Chem. 280(9):8397-8406 (2005).
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