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SHP2 Antibody (Y546)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP8471e

Specification

SHP2 Antibody (Y546) - Product Information

Application	**WB, IHC-P, FC,E**
Primary Accession	Q06124
Other Accession	P41499, P35235, Q90687, NP_002825
Reactivity	**Human**
Predicted	**Chicken, Mouse, Rat**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Antigen Region	**526-551**

SHP2 Antibody (Y546) - 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 KLH conjugated synthetic peptide between 526-551 amino acids from human SHP2.

Dilution
WB~~1:1000
IHC-P~~1:50~100
FC~~1:10~50

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
SHP2 Antibody (Y546) is for research use only and not for use in diagnostic or therapeutic procedures.

SHP2 Antibody (Y546) - Protein Information

Name PTPN11

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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

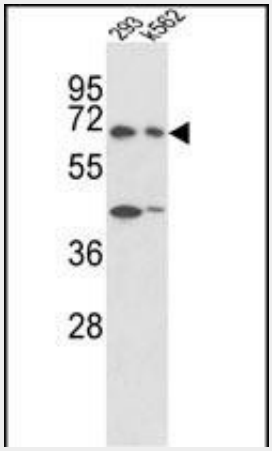
Tissue Location
Widely expressed, with highest levels in heart, brain, and skeletal muscle.

SHP2 Antibody (Y546) - Protocols

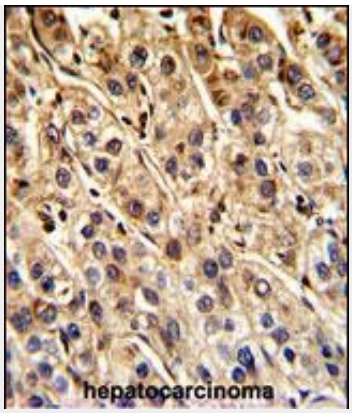
Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

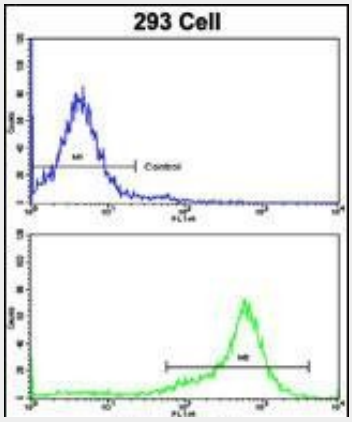
SHP2 Antibody (Y546) - Images



Western blot analysis of SHP2 Antibody (Y546) (Cat. #AP8471e) in 293, K562 cell line lysates (35ug/lane). SHP2 (arrow) was detected using the purified Pab.



Formalin-fixed and paraffin-embedded human hepatocarcinoma reacted with SHP2 Antibody (Y546), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.



Flow cytometric analysis of 293 cells using SHP2 Antibody (Y546)(bottom histogram) compared to a negative control cell (top histogram). FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

SHP2 Antibody (Y546) - 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 (Y546) - References

Chan, R.J., et al., Blood 105(9):3737-3742 (2005).
Sturla, L.M., et al., J. Biol. Chem. 280(15):14597-14604 (2005).
Loh, M.L., et al., Leuk. Res. 29(4):459-462 (2005).
Wang, Q., et al., J. Biol. Chem. 280(9):8397-8406 (2005).
Niihori, T., et al., J. Hum. Genet. 50(4):192-202 (2005).

SHP2 Antibody (Y546) - Citations

- Gene expression profiling-derived immunohistochemistry signature with high prognostic value in colorectal carcinoma.

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