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Goat Anti-SHP2 / PTPN11 Antibody
Peptide-affinity purified goat antibody
Catalog # AF1988a

Specification

Goat Anti-SHP2 / PTPN11 Antibody - Product Information

Application	**WB, IHC, E**
Primary Accession	Q06124
Other Accession	NP_002825, 5781, 19247 (mouse), 25622 (rat)
Reactivity	**Human, Mouse**
Predicted	**Rat, Pig**
Host	**Goat**
Clonality	**Polyclonal**
Concentration	**100ug/200ul**
Isotype	**IgG**
Calculated MW	**68011**

Goat Anti-SHP2 / PTPN11 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

Dilution
WB~~1:1000
IHC~~1:100~500
E~~N/A

Format
0.5 mg IgG/ml in Tris saline (20mM Tris pH7.3, 150mM NaCl), 0.02% sodium azide, with 0.5% bovine serum albumin

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
Goat Anti-SHP2 / PTPN11 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Goat Anti-SHP2 / PTPN11 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.

Goat Anti-SHP2 / PTPN11 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

Goat Anti-SHP2 / PTPN11 Antibody - Images

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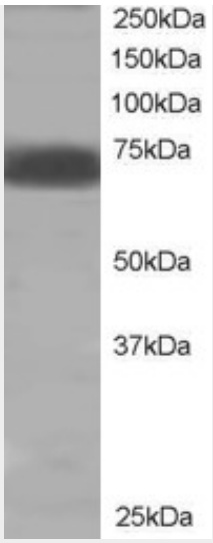
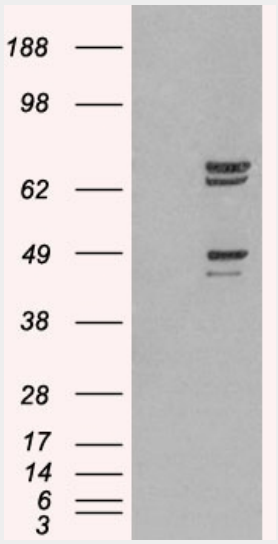
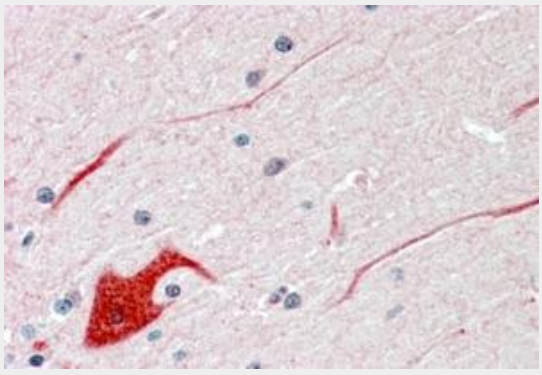


AF1988a staining (2 µg/ml) of human muscle lysate (RIPA buffer, 35 µg total protein per lane). Primary incubated for 1 hour. Detected by western blot using chemiluminescence.



HEK293 overexpressing PTPN11 (RC220029) and probed with AF1988a (mock transfection in first lane), tested by Origene.



AF1988a (3.8 µg/ml) staining of paraffin embedded Human Cerebellum Steamed antigen retrieval with citrate buffer pH 6, AP-staining.

Goat Anti-SHP2 / PTPN11 Antibody - Background

The protein encoded by this gene 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 this gene are a cause of Noonan syndrome as well as acute myeloid leukemia.

Goat Anti-SHP2 / PTPN11 Antibody - References

[Expression and its clinical significance of SHP2 in non-small cell lung cancer] Tang C, et al. Zhongguo Fei Ai Za Zhi, 2010 Feb. PMID 20673499.
Maternal genes and facial clefts in offspring: a comprehensive search for genetic associations in two population-based cleft studies from Scandinavia. Jugessur A, et al. PLoS One, 2010 Jul 9. PMID 20634891.
The language phenotype of children and adolescents with Noonan syndrome. Pierpont EI, et al. J Speech Lang Hear Res, 2010 Aug. PMID 20543023.
Integrin beta4 attenuates SHP-2 and MAPK signaling and reduces human lung endothelial inflammatory responses. Chen W, et al. J Cell Biochem, 2010 Jun 1. PMID 20512931.
Importance of protein-tyrosine phosphatase-alpha catalytic domains for interactions with SHP-2 and interleukin-1-induced matrix metalloproteinase-3 expression. Wang Q, et al. J Biol Chem, 2010 Jul 16. PMID 20472558.