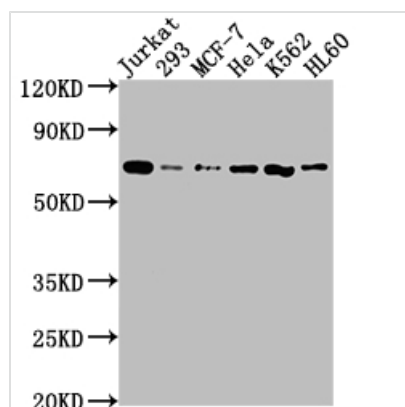




# PTPN11 Recombinant Monoclonal Antibody

<b>Product Code</b>	CSB-RA289762A0HU
<b>Storage</b>	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.
<b>Uniprot No.</b>	Q06124
<b>Immunogen</b>	A synthesized peptide derived from human SHP2
<b>Species Reactivity</b>	Human
<b>Tested Applications</b>	ELISA, WB, IHC; Recommended dilution: WB:1:500-1:5000, IHC:1:50-1:200
<b>Relevance</b>	Acts downstream of various receptor and cytoplasmic protein tyrosine kinases to participate in the signal transduction from the cell surface to the nucleus. 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. Dephosphorylates CDC73 (PubMed:26742426).
<b>Form</b>	Liquid
<b>Conjugate</b>	Non-conjugated
<b>Storage Buffer</b>	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
<b>Purification Method</b>	Affinity-chromatography
<b>Isotype</b>	Rabbit IgG
<b>Clonality</b>	Monoclonal
<b>Product Type</b>	Recombinant Antibody
<b>Immunogen Species</b>	Homo sapiens (Human)
<b>Research Area</b>	Neuroscience; Signal transduction
<b>Gene Names</b>	PTPN11
<b>Clone No.</b>	6G11

## Image



### Western Blot

Positive WB detected in: Jurkat whole cell lysate, 293 whole cell lysate, MCF-7 whole cell lysate, HeLa whole cell lysate, K562 whole cell lysate, HL60 whole cell lysate

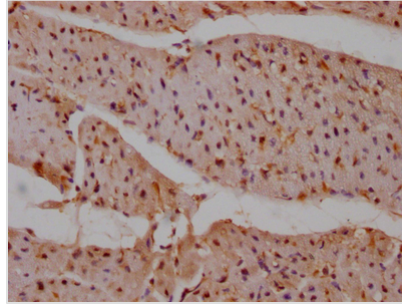
All lanes: PTPN11 antibody at 1:2000

Secondary

Goat polyclonal to rabbit IgG at 1/50000 dilution

Predicted band size: 69, 53 kDa

Observed band size: 69 kDa



IHC image of CSB-RA289762A0HU diluted at 1:100 and staining in paraffin-embedded human heart tissue performed on a Leica Bond<sup>TM</sup> system. After dewaxing and hydration, antigen retrieval was mediated by high pressure in a citrate buffer (pH 6.0). Section was blocked with 10% normal goat serum 30min at RT. Then primary antibody (1% BSA) was incubated at 4? overnight. The primary is detected by a Goat anti-rabbit IgG polymer labeled by HRP and visualized using 0.05% DAB.

## Description

The PTPN11 recombinant monoclonal antibody is produced using protein and DNA recombinant technology. Initially, a synthetic peptide derived from human PTPN11 was used to immunize mice. After a certain period, the spleen of mice was removed under aseptic conditions, and total RNA from spleen cells was extracted. cDNA synthesized from RNA reverse transcription was used as a template to amplify the PTPN11 antibody gene by PCR. The obtained PTPN11 antibody gene was inserted into a vector and transfected into host cells for culture. The PTPN11 recombinant monoclonal antibody was purified from the cell culture supernatant using affinity chromatography and rigorously verified for human PTPN11 protein detection in ELISA, WB, and IHC experiments.

The PTPN11 protein mainly regulates cell signaling pathways by controlling the phosphorylation status of specific tyrosine residues in target proteins. PTPN11 acts as a phosphatase enzyme, removing phosphate groups from tyrosine residues in target proteins, which in turn modulates their activity and function. PTPN11 is particularly involved in the regulation of several important signaling pathways, including those mediated by growth factors, cytokines, and hormones. By dephosphorylating target proteins, PTPN11 plays a crucial role in controlling cellular processes such as cell growth, differentiation, and survival. Mutations in the PTPN11 gene have been associated with various human diseases, including developmental disorders and certain types of cancer.