

**PTPN11 Antibody**  
**Purified Mouse Monoclonal Antibody**  
**Catalog # AO1758a**

**Specification**

**PTPN11 Antibody - Product Information**

Application	<b>E, WB, IF, FC, IHC</b>
Primary Accession	<a href="#">Q06124</a>
Reactivity	<b>Human</b>
Host	<b>Mouse</b>
Clonality	<b>Monoclonal</b>
Isotype	<b>IgG1</b>
Calculated MW	<b>68.4kDa KDa</b>

**Description**

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. Two transcript variants encoding different isoforms have been found for this gene.

**Immunogen**

Purified recombinant fragment of human PTPN11 (AA: 263-329) expressed in E. Coli.

**Formulation**

Purified antibody in PBS with 0.05% sodium azide

**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**

E~~1/10000  
WB~~1/500 - 1/2000  
IF~~1/200 - 1/1000  
FC~~1/200 - 1/400  
IHC~~1/200 - 1/1000

**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

PTPN11 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

## 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:<a href="http://www.uniprot.org/citations/10655584" target="\_blank">10655584</a>, PubMed:<a href="http://www.uniprot.org/citations/14739280" target="\_blank">14739280</a>, PubMed:<a href="http://www.uniprot.org/citations/18559669" target="\_blank">18559669</a>, PubMed:<a href="http://www.uniprot.org/citations/18829466" target="\_blank">18829466</a>, PubMed:<a href="http://www.uniprot.org/citations/26742426" target="\_blank">26742426</a>, PubMed:<a href="http://www.uniprot.org/citations/28074573" target="\_blank">28074573</a>). Positively regulates MAPK signal transduction pathway (PubMed:<a href="http://www.uniprot.org/citations/28074573" target="\_blank">28074573</a>). Dephosphorylates GAB1, ARHGAP35 and EGFR (PubMed:<a href="http://www.uniprot.org/citations/28074573" target="\_blank">28074573</a>). Dephosphorylates ROCK2 at 'Tyr-722' resulting in stimulation of its RhoA binding activity (PubMed:<a href="http://www.uniprot.org/citations/18559669" target="\_blank">18559669</a>). Dephosphorylates CDC73 (PubMed:<a href="http://www.uniprot.org/citations/26742426" target="\_blank">26742426</a>). Dephosphorylates SOX9 on tyrosine residues, leading to inactivate SOX9 and promote ossification (By similarity). Dephosphorylates tyrosine-phosphorylated NEDD9/CAS-L (PubMed:<a href="http://www.uniprot.org/citations/19275884" target="\_blank">19275884</a>).

### Cellular Location

Cytoplasm. Nucleus

### Tissue Location

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

## 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 Cytometry](#)
- [Cell Culture](#)

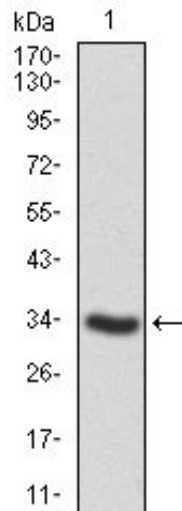
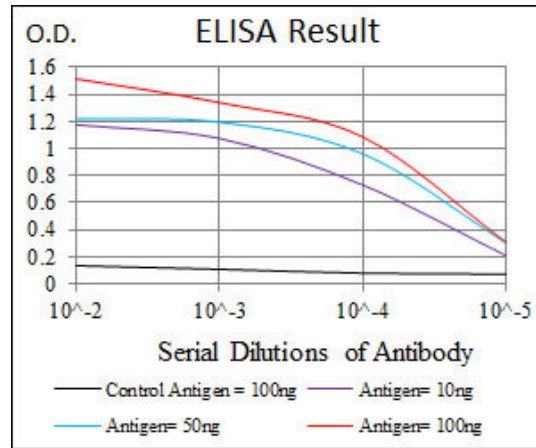


Figure 1: Western blot analysis using PTPN11 mAb against human PTPN11 recombinant protein. (Expected MW is 33.4 kDa)

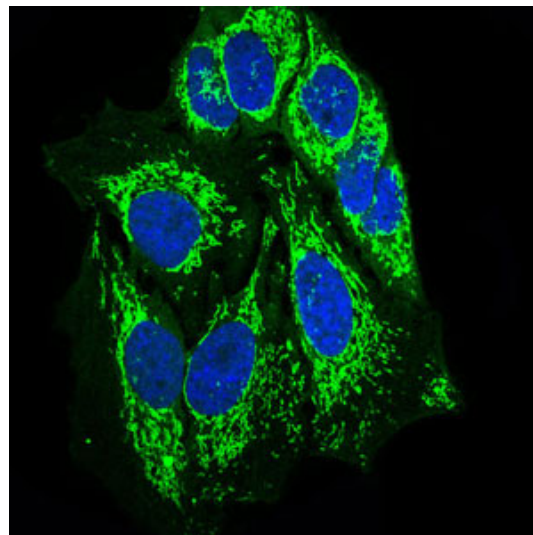


Figure 2: Immunofluorescence analysis of HeLa cells using PTPN11 mouse mAb (green). Blue: DRAQ5 fluorescent DNA dye.

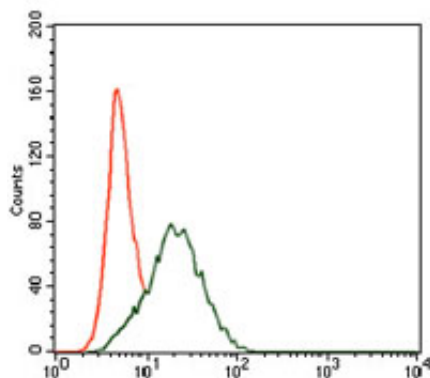


Figure 3: Flow cytometric analysis of HepG2 cells using PTPN11 mouse mAb (green) and negative control (red).

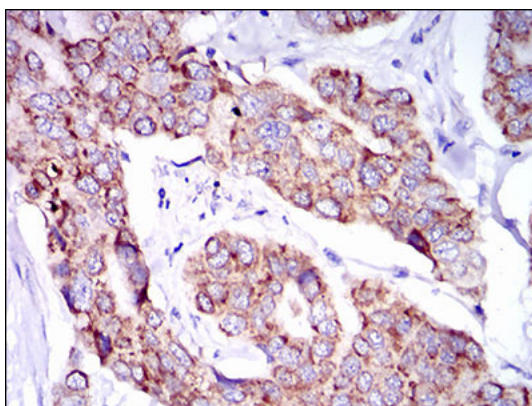


Figure 4: Immunohistochemical analysis of paraffin-embedded breast cancer tissues using PTPN11 mouse mAb with DAB staining.

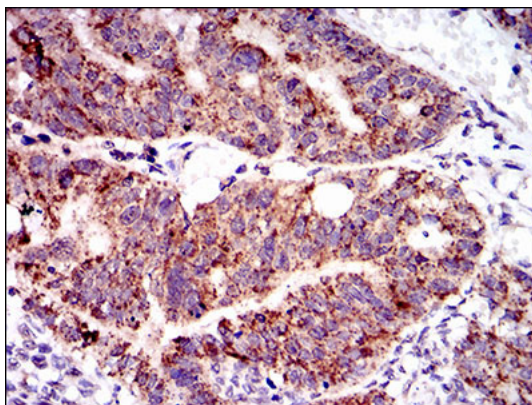


Figure 5: Immunohistochemical analysis of paraffin-embedded rectum cancer tissues using PTPN11 mouse mAb with DAB staining.

#### PTPN11 Antibody - References

1. Blood. 2011 Aug 11;118(6):1504-15.
2. Cancer Cell. 2011 May 17;19(5):629-39.