

# PTPN11 Antibody

Purified Mouse Monoclonal Antibody  
Catalog # AO1758a

## Product Information

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|--------------------------|---|
| <b>Application</b>       | WB, IHC, FC, ICC, E   |
| <b>Primary Accession</b> | <a href="#">Q06124</a>  |
| <b>Reactivity</b>        | Human   |
| <b>Host</b>              | Mouse   |
| <b>Clonality</b>         | Monoclonal  |
| <b>Clone Names</b>       | 6D9   |
| <b>Isotype</b>           | IgG1  |
| <b>Calculated MW</b>     | 68011   |
| <b>Description</b>       | <p>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.</p> |
| <b>Immunogen</b>         | Purified recombinant fragment of human PTPN11 (AA: 263-329) expressed in E. Coli.   |
| <b>Formulation</b>       | Purified antibody in PBS with 0.05% sodium azide  |

## Additional Information

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| <b>Gene ID</b>     | 5781  |
| <b>Other Names</b> | 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 |
| <b>Dilution</b>    | WB~~1/500 - 1/2000 IHC~~1/200 - 1/1000 FC~~1/200 - 1/400 ICC~~N/A E~~1/10000  |
| <b>Storage</b>     | 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.  |
| <b>Precautions</b> | PTPN11 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.   |

## Protein Information

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|--------------------------|--|
| <b>Name</b>              | PTPN11   |
| <b>Synonyms</b>          | PTP2C, SHPTP2  |
| <b>Function</b>          | <p>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="#">10655584</a>, PubMed:<a href="#">14739280</a>, PubMed:<a href="#">18559669</a>, PubMed:<a href="#">18829466</a>, PubMed:<a href="#">26742426</a>, PubMed:<a href="#">28074573</a>, PubMed:<a href="#">32184441</a>). Positively regulates MAPK signal transduction pathway (PubMed:<a href="#">28074573</a>). Dephosphorylates GAB1, ARHGAP35 and EGFR (PubMed:<a href="#">28074573</a>). Dephosphorylates ROCK2 at 'Tyr-722' resulting in stimulation of its RhoA binding activity (PubMed:<a href="#">18559669</a>). Dephosphorylates CDC73 (PubMed:<a href="#">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="#">19275884</a>). Acts as an effector of PDCD1-mediated inhibition of T-cell response: recruited by phosphorylated PDCD1, mediating dephosphorylation of key T-cell receptor (TCR) proximal signaling molecules, leading to TCR signaling inhibition (PubMed:<a href="#">32184441</a>).</p> |
| <b>Cellular Location</b> | Cytoplasm. Nucleus   |
| <b>Tissue Location</b>   | Widely expressed, with highest levels in heart, brain, and skeletal muscle.  |

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## References

1.Blood. 2011 Aug 11;118(6):1504-15.2.Cancer Cell. 2011 May 17;19(5):629-39.

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## Images

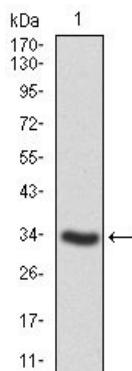


Figure 1: Western blot analysis using PTPN11 mAb against human PTPN11 recombinant protein. (Expected MW is 33.4 kDa)

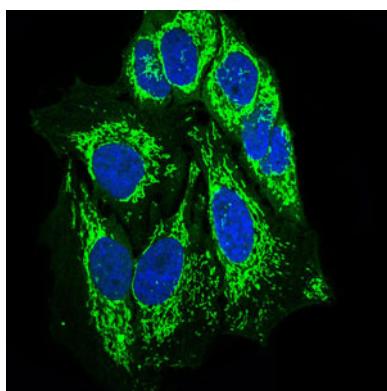


Figure 2: Immunofluorescence analysis of HeLa cells using PTPN11 mouse mAb (green). Blue: DRAQ5 fluorescent DNA dye.

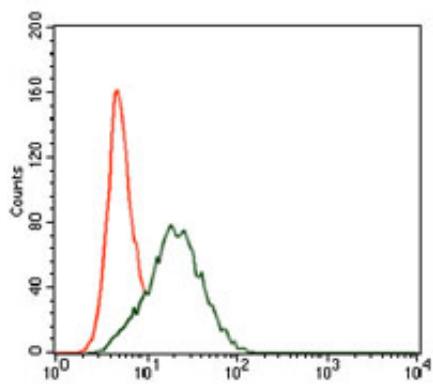


Figure 3: Flow cytometric analysis of HepG2 cells using PTPN11 mouse mAb (green) and negative control (red).

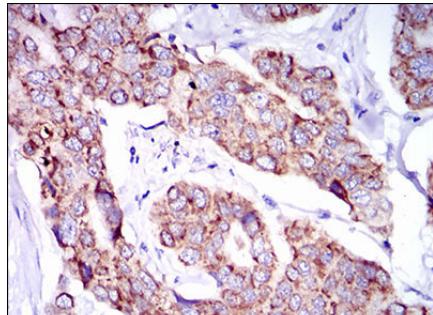


Figure 4: Immunohistochemical analysis of paraffin-embedded breast cancer tissues using PTPN11 mouse mAb with DAB staining.

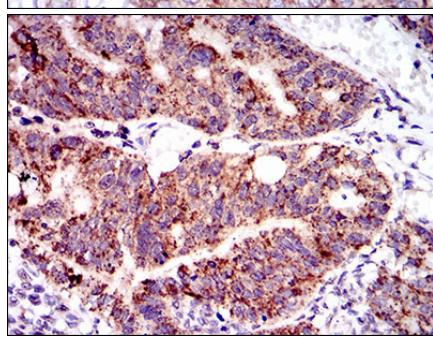


Figure 5: Immunohistochemical analysis of paraffin-embedded rectum cancer tissues using PTPN11 mouse mAb with DAB staining.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.