

## PTPN1 Monoclonal Antibody

### Description

<b>Product type</b>	Antibody
<b>Code</b>	BT-MCA4081
<b>Host</b>	Mouse
<b>Isotype</b>	Mouse IgG1
<b>Size</b>	100µL, 50µL
<b>Immunogen</b>	Purified recombinant fragment of human PTPN1 (AA: 40-246) expressed in E. Coli.
<b>Mol wt</b>	50kDa
<b>Species reactivity</b>	Human
<b>Clonality</b>	Monoclonal
<b>Recommended application</b>	WB,IHC,ICC,FCM
<b>Concentration</b>	N/A
<b>Full name</b>	N/A
<b>Synonyms</b>	PTP1B

This product is for research use only, not for use in human, therapeutic or diagnostic procedure.

### Background

The protein encoded by this gene is the founding member of the protein tyrosine phosphatase (PTP) family, which was isolated and identified based on its enzymatic activity and amino acid sequence. PTPs catalyze the hydrolysis of the phosphate monoesters specifically on tyrosine residues. Members of the PTP family share a highly conserved catalytic motif, which is essential for the catalytic activity. 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 has been shown to act as a negative regulator of insulin signaling by dephosphorylating the phosphotyrosine residues of insulin receptor kinase. This PTP was also reported to dephosphorylate epidermal growth factor receptor kinase, as well as JAK2 and TYK2 kinases, which implicated the role of this PTP in cell growth control, and cell response to interferon stimulation. Two transcript variants encoding different isoforms have been found for this gene.

### Recommended Dilution

WB: 1:500 - 1:2000

IHC-p: 1:200 - 1:1000

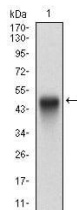
ICC: 1:200 - 1:1000

FCM: 1:200 - 1:400

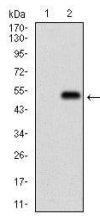
ELISA: 1:10000

Not yet tested in other applications.

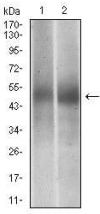
### Images



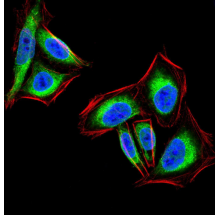
Western blot analysis using PTPN1 mAb against human PTPN1 (AA: 40-246) recombinant protein.  
(Expected MW is 50 kDa)



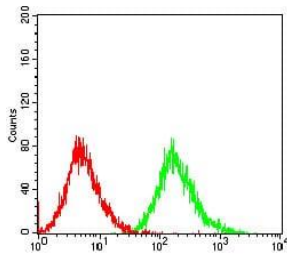
Western blot analysis using PTPN1 mAb against HEK293 (1) and PTPN1 (AA: 40-246)-hIgGFc transfected HEK293 (2) cell lysate.



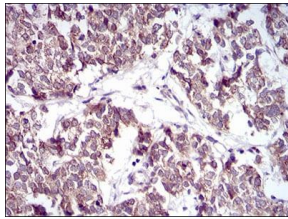
Western blot analysis using PTPN1 mouse mAb against Jurkat (1), MCF-7 (2) cell lysate.



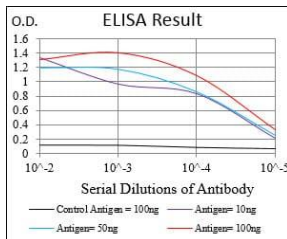
Immunofluorescence analysis of HeLa cells using PTPN1 mouse mAb (green). Blue: DRAQ5 fluorescent DNA dye. Red: Actin filaments have been labeled with Alexa Fluor-555 phalloidin. Secondary antibody from Fisher (Cat#: 35503)



Flow cytometric analysis of Jurkat cells using PTPN1 mouse mAb (green) and negative control (red).



Immunohistochemical analysis of paraffin-embedded bladder cancer tissues using PTPN1 mouse mAb with DAB staining.



Black line: Control Antigen (100 ng); Purple line: Antigen(10ng); Blue line: Antigen (50 ng); Red line: Antigen (100 ng);

## Storage

Store at 4°C short term. Aliquot and store at -20°C long term.

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