

## Anti-PTPN1 Polyclonal Antibody

## Product Details

Ig Type:	IgG
Reactivity:	Human,Rat (predicted:Mouse,Pig,Cow,Horse,Rabbit)
Molecular Weight:	Theoretical: 48 kDa. Actual: 48 kDa.
Purification:	Protein A purified

## Applications

1. Tissue/cell: human endometrium tissue; 4% Paraformaldehyde-fixed and paraffin-embedded;  
Antigen retrieval: citrate buffer (0.01 M, pH 6.0), Boiling bathing for 15 min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30 min; Blocking buffer (normal goat serum) at 37°C for 20 min;  
Incubation: Anti-PTP-1B Polyclonal Antibody, Unconjugated (TMAB-11922) 1: 200, overnight at 4°C, followed by conjugation to the secondary antibody and DAB staining
2. Sample: MCF-7 Cell Lysate at 40 µg  
Primary: Anti-PTP1B (TMAB-11922) at 1/300 dilution  
Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution  
Predicted band size: 48 kD  
Observed band size: 48 kD
3. Paraformaldehyde-fixed, paraffin embedded (rat brain tissue); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30 min; Antibody incubation with (PTP1B) Polyclonal Antibody, Unconjugated (TMAB-11922) at 1: 200 overnight at 4°C, followed by operating according to SP Kit (Rabbit) instructions and DAB staining.
4. Hela cell; 4% Paraformaldehyde-fixed; Triton X-100 at room temperature for 20 min; Blocking buffer (normal goat serum) at 37°C for 20 min; Antibody incubation with (PTP1B) polyclonal Antibody, Unconjugated (TMAB-11922) 1:100, 90 minutes at 37°C; followed by a conjugated Goat Anti-Rabbit IgG antibody at 37°C for 90 minutes, DAPI (blue) was used to stain the cell nuclei.
5. Hela cell; 4% Paraformaldehyde-fixed; Triton X-100 at room temperature for 20 min; Blocking buffer (normal goat serum) at 37°C for 20 min; Antibody incubation with (PTP1B) polyclonal Antibody, Unconjugated (TMAB-11922) 1:100, 90 minutes at 37°C; followed by a conjugated Goat Anti-Rabbit IgG antibody at 37°C for 90 minutes, DAPI (blue) was used to stain the cell nuclei.
6. Blank control (black line): HUVEC.  
Primary Antibody (green line): Rabbit Anti-PTP1B antibody (TMAB-11922)  
Dilution: 1 µg/Test;  
Secondary Antibody (white blue line): Goat anti-rabbit IgG-AF488  
Dilution: 0.5 µg/Test.  
Isotype control (orange line): Normal Rabbit IgG

## Verified Activity:

## Protocol

The cells were fixed with 4% PFA (10 min at room temperature) and then permeabilized with 90% ice-cold methanol for 20 min at -20°C, The cells were then incubated in 5% BSA to block non-specific protein-protein interactions for 30 min at room temperature. Cells stained with Primary Antibody for 30 min at room temperature. The secondary antibody used for 40 min at

room temperature. Acquisition of 20,000 events was performed.

Application: WB,IHC-P,IHC-Fr,ICC/IF,IF,FCM

Recommended WB: 1:500-2000; IHC-P: 1:100-500; IHC-Fr: 1:100-500; ICC/IF: 1:100-500; IF: 1:100-500; FCM: 1µg/Test

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### Properties

Stability & Storage: Store at 2°C-8°C for 1 month. Store at -20°C or -80°C for 12 months. Avoid repeated freeze-thaw cycles.

Shipping: Shipping with blue ice.

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### Antigen Details

Immunogen: KLH conjugated synthetic peptide: human PTP-1B

Antigen Species: Human

Gene ID: 5770

Uniprot ID: P18031

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### Research 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. [provided by RefSeq, Jul 2013]

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