# Anti-Phospho-PTP1B (Ser378) Rabbit mAb

Purified Recombinant Rabbit Monoclonal Antibody

Catalog # R013349

## Product Information

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| Application | WB, IHC-P/IF (Tissue-P), ELISA |
| Reactivity | Human |
| Dilution | WB 1:1,000~1:5,000; IHC-P 1:100~1:200; IF 1:100~1:200 |
| Host | Rabbit |
| Clonality | Monoclonal |
| Clone No. | 81L13M61 |
| Isotype | IgG |
| Label | Unconjugated |
| Immunogen | A synthetic phosphopeptide corresponding to residues surrounding Ser378 of human PTP1B |
| Format | Affinity purified monoclonal antibody supplied in PBS with 0.02% sodium azide and 50% glycerol, pH 7.3. |
| Storage | Shipped on wet ice. Store at -20°C. Stable for 24 months from date of receipt. Aliquoting is unnecessary for -20°C storage. |
| Precautions | Anti-Phospho-PTP1B (Ser378) Rabbit mAb [81L13M61] is for research use only and not for use in diagnostic or therapeutic procedures. |

## Protein Information

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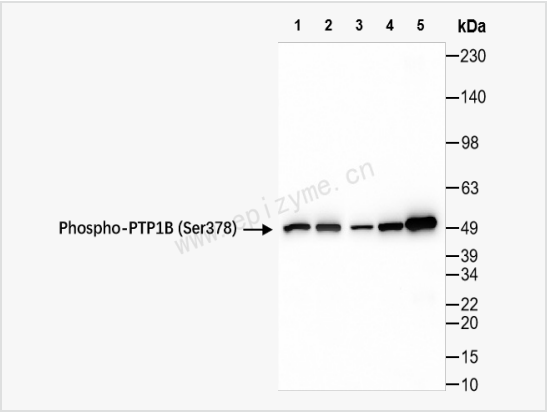
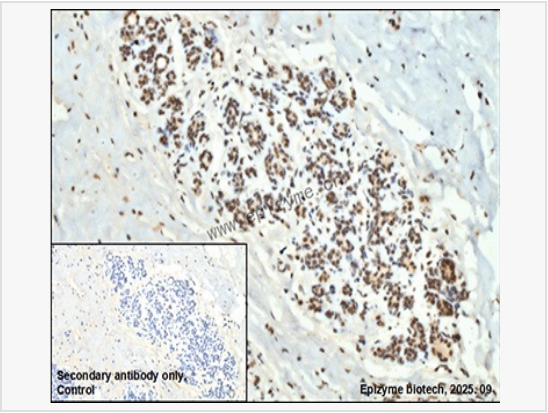
|---|---|
| Synonyms | PTN1_HUMAN; Tyrosine-protein phosphatase non-receptor type 1; EC:3.1.3.48; PTPN1; Protein-tyrosine phosphatase 1B(PTP-1B). |
| Calculated MW | Calculated MW: 50 kDa; Observed MW: 50 kDa |
| Uniprot ID | P18031 |
| Gene ID | 5770 |
| Background | The protein encoded by this gene 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 phosphotryosine 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] |
| Cellular Location | Endoplasmic reticulum membrane Peripheral membrane protein Cytoplasmic side Interacts with EPHA3 at the cell membrane. |
| Tissue Location | Expressed in keratinocytes (at protein level). |

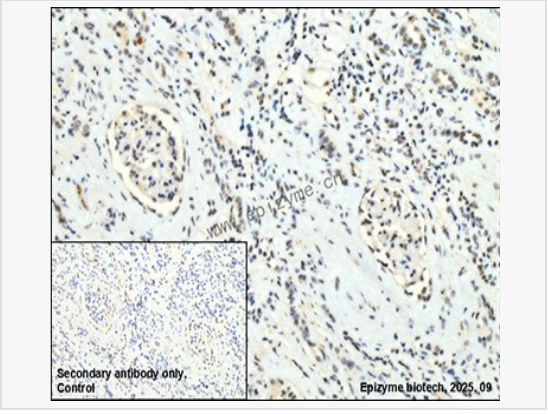
## Validation Images




Western Blot - Anti-Phospho-PTP1B (Ser378) Rabbit mAb [81L13M61]
All lanes: R013349 at 1:5,000 dilution
Lane 1: HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysates
Lane 2: HepG2 (Human hepatocarcinoma epithelial cell) whole cell lysates
Lane 3: U87 (Human malignant glioblastoma epithelial cells) whole cell lysates
Lane 4: SH-SY5Y (Human neuroblastoma epithelial cell) whole cell lysates
Lane 5: U2OS (Human osteosarcoma epithelial cell) whole cell lysates
Lysates/proteins at 10 µg per lane.
Secondary antibody: Goat Anti-Rabbit IgG (H+L), HRP Conjugated (Cat. No. LF102) at 1:5,000 dilution
Predicted band size: 50 kDa
Observed band size: 50 kDa
Developed using the ECL technique (Cat. No. SQ201).




Immunohistochemistry - Anti-Phospho-PTP1B (Ser378) Rabbit mAb [81L13M61]
Sample: Paraformaldehyde-fixed, paraffin embedded human breast cancer tissue
Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 30 mins.
Primary antibody: R013349 at 1:200 dilution
Secondary antibody: Goat Anti-Rabbit IgG (H+L), HRP conjugated at 1:1,000 dilution
DAB was used as the chromogen.
Counter stained with hematoxylin.
Positive/negative staining were presented.
Only the secondary antibody was used as the negative control.




Immunohistochemistry - Anti-Phospho-PTP1B (Ser378) Rabbit mAb [81L13M61]
Sample: Paraformaldehyde-fixed, paraffin embedded human renal carcinoma tissue
Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 30 mins.
Primary antibody: R013349 at 1:200 dilution
Secondary antibody: Goat Anti-Rabbit IgG (H+L), HRP conjugated at 1:1,000 dilution
DAB was used as the chromogen.
Counter stained with hematoxylin.
Positive/negative staining were presented.
Only the secondary antibody was used as the negative control.