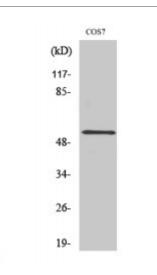


## **Anti-PTP1B** antibody



**Description** 

Rabbit polyclonal to PTP1B.

Model STJ95265

**Host** Rabbit

**Reactivity** Human, Mouse, Rat, Simian

**Applications** ELISA, IHC, WB

Immunogen Synthesized peptide derived from human PTP1B around the non-

phosphorylation site of S50.

**Immunogen Region** 30-110 aa

**Gene ID** <u>5770</u>

Gene Symbol PTPN1

**Dilution range** WB 1:500-1:2000IHC 1:100-1:300ELISA 1:20000

**Specificity** PTP1B Polyclonal Antibody detects endogenous levels of PTP1B protein.

**Purification** The antibody was affinity-purified from rabbit antiserum by affinity-

chromatography using epitope-specific immunogen.

**Note** For Research Use Only (RUO).

**Protein Name** Tyrosine-protein phosphatase non-receptor type 1 Protein-tyrosine

phosphatase 1B PTP-1B

Molecular Weight 49 kDa

**Clonality** Polyclonal

**Conjugation** Unconjugated

**Isotype** IgG

**Formulation** Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

**Concentration** 1 mg/ml

**Storage Instruction** Store at -20°C, and avoid repeat freeze-thaw cycles.

Database Links <u>HGNC:9642OMIM:176885</u>

Alternative Names Tyrosine-protein phosphatase non-receptor type 1 Protein-tyrosine

phosphatase 1B PTP-1B

**Function** Tyrosine-protein phosphatase which acts as a regulator of endoplasmic

reticulum unfolded protein response. Mediates dephosphorylation of

EIF2AK3/PERK; inactivating the protein kinase activity of EIF2AK3/PERK. May play an important role in CKII- and p60c-src-induced signal transduction

cascades. May regulate the EFNA5-EPHA3 signaling pathway which modulates cell reorganization and cell-cell repulsion. May also regulate the

hepatocyte growth factor receptor signaling pathway through

dephosphorylation of MET.

**Cellular Localization** Endoplasmic reticulum membrane. Interacts with EPHA3 at the cell

membrane.

**Post-translational** Oxidized on Cys-215; the Cys-SOH formed in response to redox signaling **Modifications** reacts with the alpha-amido of the following residue to form a sulfenamide

reacts with the alpha-amido of the following residue to form a sulfenamide cross-link, triggering a conformational change that inhibits substrate binding and activity. The active site can be restored by reduction. Ser-50 is the major site of phosphorylation as compared to Ser-242 and Ser-243. Activated by phosphorylation at Ser-50. S-nitrosylation of Cys-215 inactivates the enzyme activity. Sulfhydration at Cys-215 following endoplasmic reticulum stress

inactivates the enzyme activity, promoting EIF2AK3/PERK activity.

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