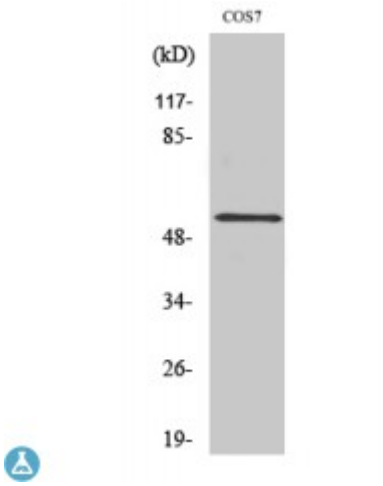
Anti-PTP1B antibody



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	5770
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	HGNC:9642OMIM:176885
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 Modifications	Oxidized on Cys-215; the Cys-SOH formed in response to redox signaling 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.