

## Recombinant PTPN6 protein

**Catalog No:** 31593, 31993

**Expressed In:** *E. coli*

**Quantity:** 50, 1000 µg

**Concentration:** 0.5 µg/µl

**Source:** Human

**Buffer Contents:** Recombinant PTPN6 protein is supplied at a concentration of 0.5 µg/µl in 25 mM Tris pH 8.0, 300 mM NaCl, 5% glycerol.

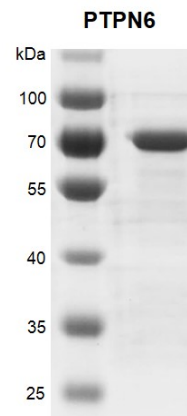
**Background:** PTPN6 (Protein Tyrosine Phosphatase, Non-Receptor Type 6, also known as HPTP1C, SHP-1L, SHP-1, PTP1C, SH-PTP1, SHP1, PTP-1C, HCPH, HCP) is a member of the protein tyrosine phosphatase (PTP) family. Members of the PTP family have a highly conserved catalytic motif, which is essential for the catalytic activity. PTPs regulate a variety of cellular processes including cell growth, differentiation, mitotic cycle, and oncogenic transformation as signaling molecules. N-terminal part of PTPN6 contains two tandem Src homolog (SH2) domains, which act as protein phospho-tyrosine binding domains to mediate the interaction of PTPN6 with its substrates. PTPN6 is expressed primarily in hematopoietic cells, and functions as an important regulator of multiple signaling pathways in hematopoietic cells. PTPN6 has been shown to interact with, and dephosphorylate a wide spectrum of phospho-proteins involved in hematopoietic cell signaling.

**Protein Details:** Recombinant PTPN6 was expressed in *E. coli* cells as the full length protein (accession number NP\_002822.2) with an N-terminal GST tag. The molecular weight of the protein is 94.2 kDa.

**Application Notes:** This protein is useful for the study of enzyme kinetics, screening inhibitors, and selectivity profiling.

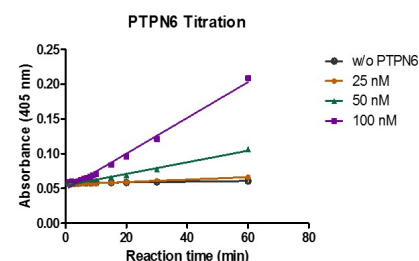
**Activity Assay Conditions:** 1 mM pNPP was incubated with different concentrations of PTPN6 protein in reaction buffer including 50 mM HEPES pH 7.5, 2 mM EDTA, 3 mM DTT, 100 mM NaCl at room temperature. The absorbance at 405 nm was continuously monitored for 30 minutes.

**Storage and Guarantee:** Recombinant proteins in solution are temperature sensitive and must be stored at -80°C to prevent degradation. Avoid repeated freeze/thaw cycles and keep on ice when not in storage. This product is for research use only and is not for use in diagnostic procedures. This product is guaranteed for 6 months from date of arrival.



### Recombinant PTPN6 protein gel.

Recombinant PTPN6 protein was run on a 10% SDS-PAGE gel and stained with Coomassie Blue.



### Recombinant PTPN6 protein activity assay.

1 mM pNPP was incubated with different concentrations of PTPN6 protein in reaction buffer including 50 mM HEPES pH 7.5, 2 mM EDTA, 3 mM DTT, 100 mM NaCl at room temperature. The absorbance at 405 nm was continuously monitored for 30 minutes.