



Recombinant Protein Technical Manual

Recombinant Human PTP1B/PTPN1 Protein (His Tag)(Active)
RPES1951

Product Data:

Product SKU: RPES1951

Size: 50µg

Species: Human

Expression host: E. coli

Uniprot: NP_002818.1

Protein Information:

Molecular Mass: 38 kDa

AP Molecular Mass: 38 kDa

Tag: N-His

Bio-activity: Measured by its ability to dephosphorylate a phosphotyrosine residue in an EGF receptor (aa988-998) phosphopeptide substrate, R&D Systems, Catalog # ES006. The specific activity is > 15 nmoles/min/µg.

Purity: > 95 % as determined by reducing SDS-PAGE.

Endotoxin: Please contact us for more information.

Storage: Store at < -20°C, stable for 6 months. Please minimize freeze-thaw cycles.

Shipping: This product is provided as liquid. It is shipped at frozen temperature with blue ice/gel packs. Upon receipt, store it immediately at < -20°C.

Formulation: Supplied as sterile 10 mM Hepes, 150 mM NaCl, 1 mM DTT, pH 7.5

Reconstitution: Please refer to the printed manual for detailed information.

Application:

Synonyms: PTP1B;PTPN1

Immunogen Information:

Sequence: Glu 2-Asn 321

Background:

PTP1B, also known as PTPN1, belongs to the protein-tyrosine phosphatase (PTP) family. 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. PTP1B contains 1 tyrosine-protein phosphatase domain and is expressed in many tissues. PTP1B is localized to the cytoplasmic face of the endoplasmic reticulum. PTP1B was also reported to dephosphorylate epidermal growth factor receptor kinase, as well as JAK2 and TYK2 kinases, which implicated the role of PTP1B in cell growth control, and cell response to IFN stimulation.