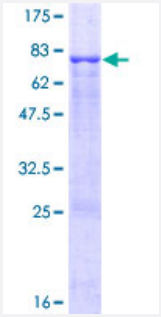
Full-Length

PTPN1 (Human) Recombinant Protein (P01)

Catalog # H00005770-P01 Size 25 ug, 10 ug

Applications



Specification

Product Description	Human PTPN1 full-length ORF (NP_002818.1, 1 a.a. - 435 a.a.) recombinant protein with GST-tag at N-terminal.
Sequence	MEMEKEFEQIDKSGSWAAIYQDIRHEASDFPCRVAKLPKNKNRNRYRDVSPFDHSRIKLHQEDND YINASLIKMEEAQRSYILTQGPLPNTCGHFWEMVWEQKSRGVVMLNRVMEKGSLKCAQYWPQKE EKEMIFEDTNLKLTLISEDIKSYYTVRQLELENLTTQETREILHFHYTTWPDFGVPESPASFLNFLFK VRESGSLSPEHGPVVVHCSAGIGRSGTFCLADTCLLLMDKRKDPSSVDIKKVLLEMRKFRMGLIQ TADQLRFSYLAVIEGAKFIMGDSSVQDQWKELSHEDLEPPPEHIPPPPRPPKRILEPHNGKCREF FPNHQWVKEETQEDKDCPIKEEKGSPLNAAPYGIESMSQDTEVRSRVVGGSLRGAQAASPAKG EPSLPEKDEDHALSYWKPFLVNMCVATVLTAGAYLCYRFLFNSNT
Host	Wheat Germ (in vitro)
Theoretical MW (kDa)	76.4
Preparation Method	*in vitro* wheat germ expression system
Purification	Glutathione Sepharose 4 Fast Flow
Quality Control Testing	12.5% SDS-PAGE Stained with Coomassie Blue.
Storage Buffer	50 mM Tris-HCl, 10 mM reduced Glutathione, pH=8.0 in the elution buffer.
Storage Instruction	Store at -80°C. Aliquot to avoid repeated freezing and thawing.

Note	Best use within three months from the date of receipt of this protein.

Applications

- Enzyme-linked Immunoabsorbent Assay
- Western Blot (Recombinant protein)
- Antibody Production
- Protein Array

Gene Info — PTPN1

Entrez GeneID	5770
GeneBank Accession#	NM_002827.2
Protein Accession#	NP_002818.1
Gene Name	PTPN1
Gene Alias	PTP1B
Gene Description	protein tyrosine phosphatase, non-receptor type 1
Omim ID	176885 609830
Gene Ontology	Hyperlink
Gene Summary	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 phosphotyrosine 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. [provided by RefSeq
Other Designations	OTTHUMP00000031266|non-receptor tyrosine phosphatase 1|protein tyrosine phosphatase 1B|protein tyrosine phosphatase, placental

Pathway

- Adherens junction
- Insulin signaling pathway

Disease

- Albuminuria
- Alzheimer disease
- Arteriosclerosis
- Atherosclerosis
- Atrophy
- Calcinosis
- Cardiomyopathy
- Cardiovascular Diseases
- Cerebrovascular Disorders
- Coronary Artery Disease
- Coronary Disease
- Diabetes Complications
- Diabetes Mellitus
- Diabetic Angiopathies
- Diabetic Retinopathy
- Dyslipidemias
- Genetic Predisposition to Disease
- Glucose Intolerance
- Helicobacter Infections
- Hypertension

- Insulin Resistance
- Kidney Failure
- Lymphoma
- Metabolic Syndrome X
- Neoplasms
- Noonan Syndrome
- Obesity
- Osteoporosis
- Ovarian Neoplasms
- Peripheral Vascular Diseases
- Pulmonary Valve Stenosis
- Stomach Neoplasms
- Syndrome