



Recombinant Rat Tyrosine-protein phosphatase non-receptor type 1 (Ptpn1)

Product Code	CSB-MP019024RA
Storage	Store at -20°C, for extended storage, conserve at -20°C or -80°C.
Uniprot No.	P20417
Product Type	Recombinant Protein
Immunogen Species	Rattus norvegicus (Rat)
Purity	>85% (SDS-PAGE)
Sequence	MEMEKEFEQI DKAGNWAAY QDIRHEASDF PCRIAKLPKN KNRNRYRDVS PFDHSRIKLH QEDNDYINAS LIKMEEAQRS YILTQGPLPN TCGHFWEWVW EQKSRGVVML NRIMEKGS�K CAQYWPQKEE KEMVFDDTNL KLTLISEDVK SYYTVRQLEL ENLATQEARE ILHFHYTTWP DFGVPESPAS FLNFLFKVRE SGSLSPEHGP IVVHCSAGIG RSGTFCLADT CLLLMDKRD PSSVDIKKVL LEMRRFRMGL IQTADQLRFS YLAVIEGAKF IMGDSSVQDQ WKELSHEDLE PPPEHVPPP RPPKRTLEPH NGKCKELFSN HQWVSEESCE DEDILAREES RAPSIAVHSM SSMSQDTEVR KRMVGGGLQS AQASVPTEEE LSPTEEEQKA HRPVHWKPFL VNVCMATALA TGAYLCYRVC FH
Source	Mammalian cell
Target Names	Ptpn1
Protein Names	Recommended name: Tyrosine-protein phosphatase non-receptor type 1 EC=3.1.3.48 Alternative name(s): Protein-tyrosine phosphatase 1B Short name=PTP-1B
Expression Region	1-432
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	Tag type will be determined during the manufacturing process.
Protein Length	Full length protein
Target Details	This protein 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.

Reconstitution

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL. We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference.

Shelf Life

The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself.

Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.