

Recombinant Mouse Ptpn1, GST-tagged

Cat. No. Ptpn1-455M Lot. No. (See product label)

SPECIFICATION

Product Overview	Recombinant Mouse Protein tyrosine phosphatase, Catalytic domain, (a.a. 1-321), with N-terminal GST tag expressed in an <i>E.coli</i> expression system. MW= 63.3 kDa.
Species	Mouse
Source	E.coli
ProteinLength	1-321 a.a.
Description	Tyrosine-protein phosphatase non-receptor type 1 is an enzyme that in humans is encoded by the PTPN1 gene. 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.
Purity	>95% by SDS-PAGE.

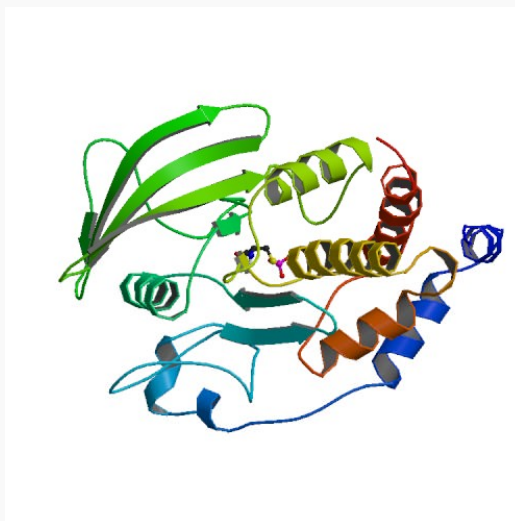
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Formulation	25 mM Tris-HCl, pH 8.0, 75 mM NaCl, 0.05% Tween-20, 50% glycerol, 1 mM DTT and 50% glycerol. Liquid at – 20°C.
Stability	>6 months at –80°C.
GENE INFORMATION	
Gene Name	Ptpn1 protein tyrosine phosphatase, non-receptor type 1 [Mus musculus]
Synonyms	Ptpn1; protein tyrosine phosphatase, non-receptor type 1; PTP1B; PTP-1B; PTP-HA2; EC 3.1.3.48; OTTMUSP00000017024; protein-protein-tyrosine phosphatase HA2
Gene ID	19246
mRNA Refseq	NM_011201
Protein Refseq	NP_035331
UniProt ID	P35821
Chromosome Location	2 H3
Pathway	Adherens junction; Insulin signaling pathway
Function	binding; hydrolase activity; protein tyrosine phosphatase activity; phosphoprotein phosphatase activity; phosphatase activity; receptor activity

PDB rendering based
on 1a5y.



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