

Active Recombinant Human Protein Tyrosine Phosphatase, Non-Receptor Type 12 / PTPN12 Protein, Untagged

Cat. No. PTPN12-1909H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinanthuman PTPN12 is expressed in E. coli; it contains the catalytic domain ofPTPN12 (residues 2-300) and has a molecular weight of 35.4 kDa.
Species	Human
Source	E.coli
ProteinLength	2-300 a.a.
Description	PTPN12 (protein tyrosine phosphatase-PEST)is a cytosolic protein tyrosine phosphatase belonging to the PEP family. PTPN12is expressed ubiquitously, but in higher levels in hemopoietic tissues.Full-length PTPN12 has been shown to associate with proteins such as Shc,paxillin, Hic-5, Cas, CasL, Sin, and Csk, which all have roles in signaltransduction. PTPN12 has also been implicated in the regulation of cellmotility through it"s interaction with Rac1. Human PTPN12 is a proteintyrosine phosphatase containing 780 amino acids.
Form	25 mM Tris-HCl (pH 8.0), 75 mM NaCl,0.05% Tween-20, 2 mM EDTA, 1 mM DTT and 50% glycerol. Liquid at -20°C.
Purity	Greaterthan 95% as determined by Coomassie-stained SDS-PAGE gel.
Specific Activity	1.7 U/μg. One unitwill hydrolyze 1 nmol of p-nitrophenyl phosphate per minute at pH 7.4 and30°C. Assay buffer: 50 mM HEPES (pH 7.4), 2 mM EDTA, 3 mM DTT, 100

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	mM NaCl and 50 mM pNPP.
Applications	Removal of phosphates from target substrates. Useful for the study of enzyme kinetics, regulation and for inhibitors screening.
Storage	6 months at -20°C.
Pathways	EGFR1 Signaling Pathway; T Cell Receptor Signaling Pathway

GENE INFORMATION

Gene Name	PTPN12 protein tyrosine phosphatase, non-receptor type 12 [Homo sapiens]
Official Symbol	PTPN12
Synonyms	PTPN12; protein tyrosine phosphatase, non-receptor type 12; PTPG1; PTP-PEST; tyrosine-protein phosphatase non-receptor type 12; OTTHUMP00000161275; OTTHUMP00000208615; OTTHUMP00000208616; protein-tyrosine phosphatase G1
Gene ID	5782
mRNA Refseq	NM_001131008
Protein Refseq	NP_001124480
MIM	600079
UniProt ID	Q05209
Chromosome Location	7q11.23

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Function

SH3 domain binding;hydrolase activity; non-membrane spanning protein tyrosine phosphataseactivity; protein binding

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