

# Recombinant Human Protein Tyrosine Phosphatase, Non-Receptor Type 12, GST-tagged

**Cat. No.** PTPN12-1620H    **Lot. No.** (See product label)

## SPECIFICATION

|                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|--------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Overview</b>  | Recombinant human PTPN12 (1-355) was expressed in E. coli cells using a N-terminal GST tag.                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Species</b>           | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Source</b>            | E.coli                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>ProteinLength</b>     | 1-355 a.a.                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Description</b>       | PTPN12 is thought to play an important role in cell adhesion and motility, cell migration, and signal transduction for antigen receptors in B and T lymphocytes. Signal transduction via tyrosine phosphorylation, normally fine-tuned by the concerted action of both protein tyrosine kinases and PTPs, is a key mechanism in tumorigenesis. Studies suggest potential role for PTP-PEST in regulation of p130 (cas) in mitogen and cell adhesion-induced signaling events. |
| <b>Applications</b>      | Phosphatase Assay; Western Blot                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Molecular Weight</b>  | 66 kDa                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Expression System</b> | E. coli                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Form</b>              | Recombinant protein stored in 20 mM MOPS, pH 7.5, 50 mM NaCl, 10 mM glutathione, 0.25 mM DTT, 0.1 mM PMSF, 30 % glycerol.                                                                                                                                                                                                                                                                                                                                                     |

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|--------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Specific Activity</b> | 2965 nmol/min/mg                                                                                                                                                                                                                        |
| <b>Purity</b>            | > 75 %                                                                                                                                                                                                                                  |
| <b>Concentration</b>     | 0.1 ug/ul                                                                                                                                                                                                                               |
| <b>Sequences</b>         | 1-355                                                                                                                                                                                                                                   |
| <b>Storage</b>           | Store product at -70°C. For optimal storage, aliquot target into smaller quantities after centrifugation and store at recommended temperature. For most favorable performance, avoid repeated handling and multiple freeze/thaw cycles. |
| <b>Pathways</b>          | EGFR1 Signaling Pathway; T Cell Receptor Signaling Pathway                                                                                                                                                                              |

## GENE INFORMATION

|                        |                                                                                                                                                                                                                                                                                                                              |
|------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Gene Name</b>       | PTPN12 protein tyrosine phosphatase, non-receptor type 12 [ Homo sapiens ]                                                                                                                                                                                                                                                   |
| <b>Official Symbol</b> | PTPN12                                                                                                                                                                                                                                                                                                                       |
| <b>Synonyms</b>        | 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; EC 3.1.3.48; Tyrosine-protein phosphatase non-receptor type 12; Protein-tyrosine phosphatase G1 |
| <b>Gene ID</b>         | 5782                                                                                                                                                                                                                                                                                                                         |
| <b>mRNA Refseq</b>     | NM_001131008                                                                                                                                                                                                                                                                                                                 |
| <b>Protein Refseq</b>  | NP_001124480                                                                                                                                                                                                                                                                                                                 |

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|----------------------------|----------------------------------------------------------------------------------------------------------------------|
| <b>MIM</b>                 | 600079                                                                                                               |
| <b>UniProt ID</b>          | Q05209                                                                                                               |
| <b>Chromosome Location</b> | 7q11.23                                                                                                              |
| <b>Function</b>            | SH3 domain binding; hydrolase activity; protein binding; non-membrane spanning protein tyrosine phosphatase activity |

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