



## Recombinant Protein Technical Manual

**Recombinant Human PTPN12 Protein (aa 1-355, His & GST Tag)(Active)**  
RPES1125

### Product Data:

**Product SKU:** RPES1125

**Size:** 20µg

**Species:** Human

**Expression host:** Baculovirus-Insect Cells

**Uniprot:** AAA36529.1

### Protein Information:

**Molecular Mass:** 69.4 kDa

**AP Molecular Mass:** 64 kDa

**Tag:** N-His & GST

**Bio-activity:** Measured by its ability to dephosphorylate a phosphotyrosine residue in an EGF receptor 988-998 phosphopeptide substrate, R&D Systems, Catalog # ES006. The specific activity is > 15 µmoles/min/mg.

**Purity:** > 90 % as determined by reducing SDS-PAGE.

**Endotoxin:** < 1.0 EU per µg as determined by the LAL method.

**Storage:** Lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.

**Shipping:** This product is provided as lyophilized powder which is shipped with ice packs.

**Formulation:** Lyophilized from sterile 20mM Tris, 500mM NaCl, 10% gly, pH 8.0

**Reconstitution:** Please refer to the printed manual for detailed information.

**Application:**

**Synonyms:** PTP-PEST;PTPG1

## Immunogen Information:

**Sequence:** Met 1-Gln355

## Background:

PTPN12 is a member of the protein tyrosine phosphatase (PTP) family. PTPs are known to be signaling molecules that regulate a variety of cellular processes including cell growth, differentiation, mitotic cycle, and oncogenic transformation. PTPN12 contains a C-terminal PEST motif, which serves as a protein–protein interaction domain, and may be related to protein intracellular half-life. PTPN12 was found to bind and dephosphorylate the product of oncogene c-ABL, thus may play a role in oncogenesis. PTPN12 was shown to interact with, and dephosphorylate, various of cytoskeleton and cell adhesion molecules, such as p130 (Cas), CAKbeta/PTK2B, PSTPIP1, and paxillin, which suggested its regulatory roles in controlling cell shape and mobility.