

Human PTPN12 Protein

Catalog Number: 11556-HNCB



Sino Biological
Biological Solution Specialist

General Information

Gene Name Synonym:

PTP-PEST; PTPG1

Protein Construction:

A DNA sequence encoding the human PTPN12 (AAA36529.1) (Met1-Gln355) was expressed and purified with two additional amino acids (Gly & Pro) at the N-terminus.

Source: Human

Expression Host: Baculovirus-Insect Cells

QC Testing

Purity: > 85 % as determined by SDS-PAGE

Bio Activity:

Measured by its ability to dephosphorylate a tyrosine residue in a peptide containing the EGFR Y992 phosphorylation site (Catalog # ES006). The specific activity is >20 $\mu\text{mol/min/mg}$.

Endotoxin:

< 1.0 EU per μg of the protein as determined by the LAL method

Stability:

Samples are stable for up to twelve months from date of receipt at -70°C

Predicted N terminal: Gly

Molecular Mass:

The secreted recombinant human PTPN12 consists of 357 amino acids and predicts a molecular mass of 41.8 KDa. The apparent molecular mass of the protein is approximately 41 KDa in SDS-PAGE under reducing conditions due to glycosylation.

Formulation:

Supplied as sterile 20mM Tris, 500mM NaCl, 10% glycerol, pH 8.0.

Usage Guide

Storage:

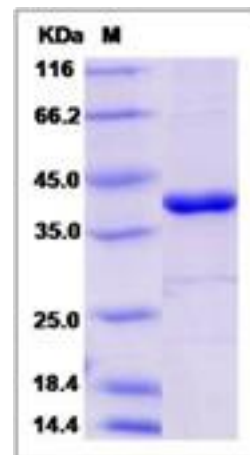
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

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.

References

1.Garton A.J. et al., 1997, Oncogene. 15 (8): 877-85. 2.Lin Yi. et al., 2003, Am J Physiol Heart Circ. 285 (2): H710-21. 3.Takekawa M. et al., 1994, FEBS Lett. 339 (3): 222-8.

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