

Mouse PTPN6 Protein (aa 207-597, His & GST Tag)

Catalog Number: 50894-M20B



Sino Biological Inc.
Biological Solution Specialist

General Information

Gene Name Synonym:

HCP; HCPH; HPTP1C; PTP-1C; SH-PTP1; SHP-1; SHP-1L; SHP1; 70Z-SHP; hcp; Hcph; me; Ptp1C; PTPTY-42; SH-PTP1; SHP-1

Protein Construction:

A DNA sequence encoding the mouse PTPN6 (P29351-2) (Ala207-Lys597) was fused with the N-terminal polyhistidine-tagged GST tag at the N-terminus.

Source: Mouse

Expression Host: Baculovirus-Insect Cells

QC Testing

Purity: > 85 % as determined by SDS-PAGE

Bio Activity:

Measured by its ability to dephosphorylate a phosphotyrosine residue in an EGF receptor 988998 phosphopeptide substrate, R&D Systems, Catalog # ES006. The specific activity is > 4 μ moles/min/ μ g.

Endotoxin:

< 1.0 EU per μ g 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: Met

Molecular Mass:

The recombinant mouse PTPN6/GST chimera consists of 628 amino acids and has a calculated molecular mass of 72.7 kDa. The recombinant protein migrates as an approximately 63 kDa band in SDS-PAGE under reducing conditions.

Formulation:

Lyophilized from sterile 20mM Tris, 500mM NaCl, pH 7.0, 10% glycerol

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Storage:

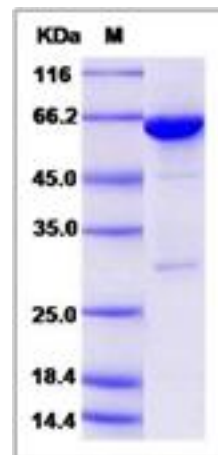
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

PTPN6 is an enzyme which belongs to the protein tyrosine phosphatase (PTP) family. PTPs are signaling molecules that regulate a variety of cellular processes including cell growth, differentiation, mitotic cycle, and oncogenic transformation. N-terminal part of PTPN6 contains two tandem Src homolog (SH2) domains, which act as protein phospho-tyrosine binding domains, and mediate the interaction of PTPN6 with its substrates. PTPN6 is expressed primarily in hematopoietic cells, and functions as an important regulator of multiple signaling pathways in hematopoietic cells. It has been shown that PTPN6 interacts with, and dephosphorylate a wide spectrum of phospho-proteins involved in hematopoietic cell signaling.

References

1. Yu CL, *et al.* (2000) Cytosolic tyrosine dephosphorylation of STAT5. Potential role of SHP-2 in STAT5 regulation. *J Biol Chem.* 275(1):599-604.
2. Wu DW, *et al.* (2000) SH2-Containing protein tyrosine phosphatase-1 (SHP-1) association with Jak2 in UT-7/Epo cells. *Blood Cells Mol Dis.* 26(1):15-24.
3. Jiao H, *et al.* (1996) Direct association with and dephosphorylation of Jak2 kinase by the SH2-domain-containing protein tyrosine phosphatase SHP-1. *Mol Cell Biol.* 16(12):6985-92.

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Fax :+86-10-51029969 • Tel:+86-400-890-9989 • <http://www.sinobiological.com>