## Recombinant Human PTPN2/PTPT Protein (His & GST <sup>©</sup> Tag)



Catalog Number: PKSH031519

Note: Centrifuge before opening to ensure complete recovery of vial contents.

#### **Description**

Synonyms PTN2;PTPT;TC-PTP;TCELLPTP;TCPTP

Species Human

**Expression Host** Baculovirus-Insect Cells

Sequence Met 1-Asn 314

AccessionP17706-1Calculated Molecular Weight64.4 kDaObserved molecular weight60 kDaTagN-His-GST

**Bioactivity** 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 > 20 nmoles/min/µg.

### **Properties**

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

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

**Storage** Store at  $< -20^{\circ}$ C, stable for 6 months. Please minimize freeze-thaw cycles.

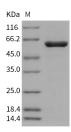
**Shipping** This product is provided as liquid. It is shipped at frozen temperature with blue

ice/gel packs. Upon receipt, store it immediately at < - 20°C.

**Formulation** Supplied as sterile solution of 20mM Tris, 300mM NaCl, 10% glycerol, pH 8.0

**Reconstitution** Not Applicable

#### Data



> 90 % as determined by reducing SDS-PAGE.

#### **Background**

Tyrosine-protein phosphatase non-receptor type 2; also known as T-cell protein-tyrosine phosphatase; PTPN2 and PTPT; is a cytoplasm protein which belongs to the protein-tyrosine phosphatase family and Non-receptor class 1 subfamily. Members of the protein tyrosine phosphatase ( PTP ) family share a highly conserved catalytic motif; which is essential for the catalytic activity. TC-PTP / PTPN2 is a cytosolic tyrosine phosphatase that functions as a negative regulator of a variety of tyrosine kinases and other signaling proteins. The expression of TC-PTP / PTPN2 plays a role of tumor suppressor and may modulate response to treatment. PTPs are known to be signaling molecules that regulate a variety of cellular processes including cell growth; differentiation; mitotic cycle; and oncogenic transformation. Epidermal growth factor receptor and the adaptor protein Shc were reported to be substrates of this PTP; which suggested the roles in growth factor mediated cell signaling. TC-PTP / PTPN2 is an enzyme that is essential for the proper functioning of the

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immune system and that participates in the control of cell proliferation; and inflammation.TC-PTP / PTPN2 was identified as a negative regulator of NUP214-ABL1 kinase activity.

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