

## Recombinant Human PTPN2/PTPT Protein (His & GST Tag)

Catalog No. PKSH031519

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

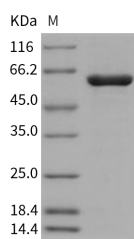
### Description

<b>Synonyms</b>	PTN2;PTPT;TC-PTP;TCELLPTP;TCPTP
<b>Species</b>	Human
<b>Expression Host</b>	Baculovirus-Insect Cells
<b>Sequence</b>	Met 1-Asn 314
<b>Accession</b>	P17706-1
<b>Calculated Molecular Weight</b>	64.4 kDa
<b>Observed molecular weight</b>	60 kDa
<b>Tag</b>	N-His-GST
<b>Bioactivity</b>	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

<b>Purity</b>	> 90 % as determined by reducing SDS-PAGE.
<b>Endotoxin</b>	< 1.0 EU per μg of the protein as determined by the LAL method.
<b>Storage</b>	Store at < -20°C, stable for 6 months. Please minimize freeze-thaw cycles.
<b>Shipping</b>	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.
<b>Formulation</b>	Supplied as sterile solution of 20mM Tris, 300mM NaCl, 10% glycerol, pH 8.0
<b>Reconstitution</b>	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

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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 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.