Recombinant Human PTP1B/PTPN1 Protein (His Tag)

Catalog Number: PKSH030416

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

Description	
Species	Human
Source	E.coli-derived Human PTP1B/PTPN1 protein Glu 2-Asn 321, with an N-terminal His
Calculated MW	38 kDa
Observed MW	38 kDa
Accession	NP_002818.1
Bio-activity	Measured by its ability to dephosphorylate a phosphotyrosine residue in an EGF
	receptor (aa988-998) phosphopeptide substrate, R&D Systems, Catalog # ES006. The
	specific activity is > 15 nmoles/min/µg.
Properties	
Purity	> 95 % as determined by reducing SDS-PAGE.
Concentration	Subject to label value.
Endotoxin	Please contact us for more information.
Storage	Store at $<$ -20°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 $< -20^{\circ}$ C.
Formulation	Supplied as sterile solution of PBS, pH 7.4
Data	
KDa MK	R
116	
66.2	cience
45.0	Elab
35.0	
25.0	Elapserer.
18.4 14.4	

> 95 % as determined by reducing SDS-PAGE.

Background

PTP1B, also known as PTPN1, belongs to the protein-tyrosine phosphatase (PTP) family. PTPs catalyze the hydrolysis of the phosphate monoesters specifically on tyrosine residues. Members of the PTP family share a highly conserved catalytic motif, which is essential for the catalytic activity. PTPs are known to be signaling molecules that regulate a variety of cellular processes including cell growth, differentiation, mitotic cycle, and oncogenic transformation. PTP1B contains 1 tyrosine-protein phosphatase domain and is expressed in many tissues. PTP1B is localized to the cytoplasmic face of the endoplasmic reticulum. PTP1B was also reported to dephosphorylate epidermal growth factor receptor kinase, as well as JAK2 and TYK2 kinases, which implicated the role of PTP1B in cell growth control, and cell response to IFN stimulation.