Datasheet for ABIN7555103

PTPN2 Protein (AA 1-415) (His tag)

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Overview

Quantity:	1 mg
Target:	PTPN2
Protein Characteristics:	AA 1-415
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This PTPN2 protein is labelled with His tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Purpose:	Custom-made recombinat PTPN2 Protein expressed in mammalien cells.
Sequence:	MPTTIEREFE ELDTQRRWQP LYLEIRNESH DYPHRVAKFP ENRNRNRYRD VSPYDHSRVK LQNAENDYIN ASLVDIEEAQ RSYILTQGPL PNTCCHFWLM VWQQKTKAVV MLNRIVEKES VKCAQYWPTD DQEMLFKETG FSVKLLSEDV KSYYTVHLLQ LENINSGETR TISHFHYTTW PDFGVPESPA SFLNFLFKVR ESGSLNPDHG PAVIHCSAGI GRSGTFSLVD TCLVLMEKGD DINIKQVLLN MRKYRMGLIQ TPDQLRFSYM AIIEGAKCIK GDSSIQKRWK ELSKEDLSPA FDHSPNKIMT EKYNGNRIGL EEEKLTGDRC TGLSSKMQDT MEENSESALR KRIREDRKAT TAQKVQQMKQ RLNENERKRK RWLYWQPILT KMGFMSVILV GAFVGWTLFF QQNAL **Sequence without tag. The proposed Purification-Tag is based on experiences with the expression system, a different complexity of the protein could make another tag necessary. In case you have a special request, please contact us.**
Characteristics:	Key Benefits:

Product Details

- Made to order protein - from design to production - by highly experienced protein experts.
- Protein expressed in mammalien cells and purified in one-step affinity chromatography
- The optimized expression system ensures reliability for intracellular, secreted and transmembrane proteins.
- State-of-the-art algorithm used for plasmid design (Gene synthesis).

This protein is a made-to-order protein and will be made for the first time for your order. Our experts in the lab try to ensure that you receive soluble protein.

If you are not interested in a full length protein, please contact us for individual protein fragments.

The big advantage of ordering our made-to-order proteins in comparison to ordering custom made proteins from other companies is that there is no financial obligation in case the protein cannot be expressed or purified.

Purity:	> 90 % as determined by Bis-Tris Page, Western Blot
Grade:	custom-made

Target Details

Target:	PTPN2
Alternative Name:	PTPN2 (PTPN2 Products)
Background:	Tyrosine-protein phosphatase non-receptor type 2 (EC 3.1.3.48) (T-cell protein-tyrosine phosphatase) (TCPTP),FUNCTION: Non-receptor type tyrosine-specific phosphatase that dephosphorylates receptor protein tyrosine kinases including INSR, EGFR, CSF1R, PDGFR. Also dephosphorylates non-receptor protein tyrosine kinases like JAK1, JAK2, JAK3, Src family kinases, STAT1, STAT3 and STAT6 either in the nucleus or the cytoplasm. Negatively regulates numerous signaling pathways and biological processes like hematopoiesis, inflammatory response, cell proliferation and differentiation, and glucose homeostasis. Plays a multifaceted and important role in the development of the immune system. Functions in T-cell receptor signaling through dephosphorylation of FYN and LCK to control T-cells differentiation and activation. Dephosphorylates CSF1R, negatively regulating its downstream signaling and macrophage differentiation. Negatively regulates cytokine (IL2/interleukin-2 and interferon)-mediated signaling through dephosphorylation of the cytoplasmic kinases JAK1, JAK3 and their substrate STAT1, that propagate signaling downstream of the cytokine receptors. Also regulates the IL6/interleukin-6 and IL4/interleukin-4 cytokine signaling through

Target Details

	dephosphorylation of STAT3 and STAT6 respectively. In addition to the immune system, it is involved in anchorage-dependent, negative regulation of EGF-stimulated cell growth. Activated by the integrin ITGA1/ITGB1, it dephosphorylates EGFR and negatively regulates EGF signaling. Dephosphorylates PDGFRB and negatively regulates platelet-derived growth factor receptor-beta signaling pathway and therefore cell proliferation. Negatively regulates tumor necrosis factor-mediated signaling downstream via MAPK through SRC dephosphorylation. May also regulate the hepatocyte growth factor receptor signaling pathway through dephosphorylation of the hepatocyte growth factor receptor MET. Also plays an important role in glucose homeostasis. For instance, negatively regulates the insulin receptor signaling pathway through the dephosphorylation of INSR and control gluconeogenesis and liver glucose production through negative regulation of the IL6 signaling pathways. May also bind DNA. {ECO:0000269|PubMed:10734133, ECO:0000269|PubMed:11909529, ECO:0000269|PubMed:12138178, ECO:0000269|PubMed:12612081, ECO:0000269|PubMed:14966296, ECO:0000269|PubMed:15592458, ECO:0000269|PubMed:18819921, ECO:0000269|PubMed:22080863, ECO:0000269|PubMed:9488479}.
Molecular Weight:	48.5 kDa
UniProt:	P17706
Pathways:	EGFR Signaling Pathway, Carbohydrate Homeostasis, Regulation of Carbohydrate Metabolic Process, Platelet-derived growth Factor Receptor Signaling

Application Details

Application Notes:	In addition to the applications listed above we expect the protein to work for functional studies as well. As the protein has not been tested for functional studies yet we cannot offer a guarantee though.
Restrictions:	For Research Use only

Handling

Format:	Liquid
Buffer:	The buffer composition is at the discretion of the manufacturer.
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C

Handling

Storage Comment:	Store at -80°C.
Expiry Date:	12 months