PTPN22 Antibody (C-Term) Blocking Peptide

PRODUCT OVERVIEW

Product Name	PTPN22, Blocking Peptide
Full Product Name	PTPN22 Antibody (C-term) Blocking Peptide
Product Gene Name	PTPN22 blocking peptide
Product Synonym Gene Name	PTPN8
Product Synonym Names	Tyrosine-protein phosphatase non-receptor type 22; Hematopoietic cell protein-tyrosine phosphatase 70Z-PEP; Lymphoid phosphatase; LyP; PEST-domain phosphatase; PEP; PTPN22; PTPN8
Form/Format	Synthetic peptide was lyophilized with 100% acetonitrile and is supplied as a powder. Reconstitute with 0.1 ml DI water for a final concentration of 1 mg/ml.
Preparation and Storage	Maintain refrigerated at 2-8 degree C for up to 6 months. For long term storage store at -20 degree C.
Antibody/Peptide Pairs	PTPN22 peptide (MBS9221945) is used for blocking the activity of PTPN22 antibody (MBS9204794)
Molecular Weight	75,488 Da
OMIM	152700
Cellular Location	Cytoplasm.
Tissue Location	Both isoform 1 and 4 are predominantly expressed in lymphoid tissues and cells. Isoform 1 is expressed in thymocytes and both mature B and T-cells
Related Product Information for PTPN22 blocking peptide	Acts as negative regulator of T-cell receptor (TCR) signaling by direct dephosphorylation of the Src family kinases LCK and FYN, ITAMs of the TCRz/CD3 complex, as well as ZAP70, VAV, VCP and other key signaling molecules. Associates with and probably dephosphorylates CBL. Dephosphorylates LCK at its activating 'Tyr-394' residue. Dephosphorylates ZAP70 at its activating 'Tyr-493' residue. Dephosphorylates the immune system activator SKAP2.
Other Notes	Small volumes of PTPN22 blocking peptide vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for PTPN22 purchase	MBS9221945 is a blocking peptide targeting PTPN22. Also known as PTPN22 Antibody (C-term) Blocking Peptide.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for PTPN22. It may not necessarily be applicable to this product.

NCBI GI #	20139861
NCBI GeneID	26191
NCBI Accession #	Q9Y2R2.2
UniProt Primary Accession #	Q9Y2R2
UniProt Secondary Accession #	O95063; O95064; Q6IPX8; Q8WVM1; A0N0K6; B1ALC8; D4NZ71; E9PLD8; E9PPI1
UniProt Related Accession #	Q9Y2R2
NCBI Official Full Name	Tyrosine-protein phosphatase non-receptor type 22
NCBI Official Synonym Full Names	protein tyrosine phosphatase, non-receptor type 22
NCBI Official Symbol	PTPN22

NCBI Official Synonym Symbols	LYP; PEP; LYP1; LYP2; PTPN8
UniProt Protein Name	Tyrosine-protein phosphatase non-receptor type 22
UniProt Synonym Protein Names	Hematopoietic cell protein-tyrosine phosphatase 70Z-PEP; Lymphoid phosphatase; LyP; PEST-domain phosphatase; PEP
Protein Family	Tyrosine-protein phosphatase non-receptor
UniProt Gene Name	PTPN22
UniProt Synonym Gene Names	PTPN8; LyP; PEP
UniProt Entry Name	PTN22_HUMAN
NCBI Protein Information	tyrosine-protein phosphatase non-receptor type 22
NCBI Summary for PTPN22	This gene encodes of member of the non-receptor class 4 subfamily of the protein-tyrosine phosphatase family. The encoded protein is a lymphoid-specific intracellular phosphatase that associates with the molecular adapter protein CBL and may be involved in regulating CBL function in the T-cell receptor signaling pathway. Mutations in this gene may be associated with a range of autoimmune disorders including Type 1 Diabetes, rheumatoid arthritis, systemic lupus erythematosus and Graves' disease. Alternatively spliced transcript variants encoding distinct isoforms have been described. [provided by RefSeq, Mar 2009]
UniProt Comments for PTPN22	PTPN22: Seems to act on Cbl. May play a role in regulating the function of Cbl and its associated protein kinases. Acts as negative regulator of T-cell receptor (TCR) signaling. Dephosphorylates and inactivates the SRC family kinases. Interacts with CSK. Interacts with LPXN. Predominantly expressed in lymphoid tissues and cells. Isoform 1 is expressed in thymocytes and both mature B and T-cells. Down-regulated by phosphorylation. Belongs to the protein-tyrosine phosphatase family. Non-receptor class 4 subfamily. 5 isoforms of the human protein are produced by alternative splicing. Protein type: Protein phosphatase, tyrosine (non-receptor); Motility/polarity/chemotaxis; EC 3.1.3.48 Chromosomal Location of Human Ortholog: 1p13.2 Cellular Component: cytoplasm; internal side of plasma membrane; nucleus; perinuclear region of cytoplasm Molecular Function: kinase binding; phosphoric monoester hydrolase activity; protein binding; protein tyrosine phosphatase activity; SH3 domain binding; ubiquitin protein ligase binding Biological Process: lipopolysaccharide-mediated signaling pathway; negative regulation of autophagy; negative regulation of JNK activity; negative regulation of T cell activation; negative regulation of T cell receptor signaling pathway; negative regulation of tumor necrosis factor production; positive regulation of interferon type I production; positive regulation of toll-like receptor 3 signaling pathway; positive regulation of toll-like receptor 4 signaling pathway; protein amino acid dephosphorylation; regulation of innate immune response; regulation of natural killer cell proliferation; response to lipopolysaccharide; T cell differentiation Disease: Diabetes Mellitus, Insulin-dependent; Rheumatoid Arthritis; Systemic Lupus Erythematosus
Research Articles on PTPN22	**1.** Our study suggests the link between periodontitis and RA could be accounted for by P gingivalis infection, and we conclude that P gingivalis is a candidate for triggering and/or driving autoimmunity and autoimmune disease in a subset of RA patients.
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