

PTPN22 Antibody (C-term) Blocking Peptide
Synthetic peptide
Catalog # BP16722b**Specification**

PTPN22 Antibody (C-term) Blocking Peptide - Product InformationPrimary Accession [Q9Y2R2](#)**PTPN22 Antibody (C-term) Blocking Peptide - Additional Information****Gene ID** 26191**Other Names**

Tyrosine-protein phosphatase non-receptor type 22, Hematopoietic cell protein-tyrosine phosphatase 70Z-PEP, Lymphoid phosphatase, LyP, PEST-domain phosphatase, PEP, PTPN22, PTPN8

Format

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

PTPN22 Antibody (C-term) Blocking Peptide - Protein Information**Name** PTPN22**Synonyms** PTPN8**Function**

Acts as a negative regulator of T-cell receptor (TCR) signaling by direct dephosphorylation of the Src family kinases LCK and FYN, ITAMs of the TCR α /CD3 complex, as well as ZAP70, VAV, VCP and other key signaling molecules (PubMed: [16461343](http://www.uniprot.org/citations/16461343), PubMed: [18056643](http://www.uniprot.org/citations/18056643)). Associates with and probably dephosphorylates CBL. Dephosphorylates LCK at its activating 'Tyr-394' residue (PubMed: [21719704](http://www.uniprot.org/citations/21719704)). Dephosphorylates ZAP70 at its activating 'Tyr-493' residue (PubMed: [16461343](http://www.uniprot.org/citations/16461343)). Dephosphorylates the immune system activator SKAP2 (PubMed: [21719704](http://www.uniprot.org/citations/21719704)). Positively regulates toll-like receptor (TLR)-induced type 1 interferon production (PubMed: [23871208](http://www.uniprot.org/citations/23871208)). Promotes host antiviral responses mediated by type 1 interferon (By similarity). Regulates NOD2-induced

pro-inflammatory cytokine secretion and autophagy (PubMed:23991106). Acts as an activator of NLRP3 inflammasome assembly by mediating dephosphorylation of 'Tyr-861' of NLRP3 (PubMed:27043286). Dephosphorylates phospho-anandamide (p-AEA), an endocannabinoid to anandamide (also called N-arachidonylethanolamide) (By similarity).

Cellular Location

Cytoplasm {ECO:0000250|UniProtKB:P29352}.

Tissue Location

Expressed in bone marrow, B and T-cells, PBMCs, natural killer cells, monocytes, dendritic cells and neutrophils (PubMed:15208781). 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.

PTPN22 Antibody (C-term) Blocking Peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Blocking Peptides](#)

PTPN22 Antibody (C-term) Blocking Peptide - Images**PTPN22 Antibody (C-term) Blocking Peptide - Background**

This gene encodes of member of the non-receptor class 4subfamily of the protein-tyrosine phosphatase family. The encodedprotein is a lymphoid-specific intracellular phosphatase thatassociates with the molecular adapter protein CBL and may beinvolved in regulating CBL function in the T-cell receptorsignaling pathway. Mutations in this gene may be associated with arange of autoimmune disorders including Type 1 Diabetes, rheumatoidarthritis, systemic lupus erythematosus and Graves' disease.Alternatively spliced transcript variants encoding distinctisoforms have been described.

PTPN22 Antibody (C-term) Blocking Peptide - References

Bailey, S.D., et al. Diabetes Care 33(10):2250-2253(2010)Andersen, M.K., et al. Diabetes Care 33(9):2062-2064(2010)Bianco, B., et al. Scand. J. Immunol. 72(3):256-259(2010)Pradhan, V., et al. J Postgrad Med 56(3):239-242(2010)Sfar, I., et al. Arch Inst Pasteur Tunis 86 (1-4), 51-62 (2009) :