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PTPN22 Antibody (C-term) Blocking Peptide

Synthetic peptide
Catalog # BP16722b

Specification

PTPN22 Antibody (C-term) Blocking Peptide - Product Information

Primary 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 TCRz/CD3 complex, as well as ZAP70, VAV, VCP and other key signaling molecules (PubMed:16461343, PubMed:18056643). Associates with and probably dephosphorylates CBL. Dephosphorylates LCK at its activating 'Tyr-394' residue (PubMed:21719704). Dephosphorylates ZAP70 at its activating 'Tyr-493' residue (PubMed:16461343). Dephosphorylates the immune system activator SKAP2 (PubMed:21719704). Positively regulates toll-like receptor (TLR)-induced type 1 interferon production (PubMed: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-arachidonoylethanolamide) (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) :