

**Anti-PTPN22 Picoband Antibody**  
**Catalog # ABO12470****Specification**

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**Anti-PTPN22 Picoband Antibody - Product Information**

Application	WB
Primary Accession	<a href="#">Q9Y2R2</a>
Host	Rabbit
Reactivity	Human, Rat
Clonality	Polyclonal
Format	Lyophilized

**Description**

Rabbit IgG polyclonal antibody for Tyrosine-protein phosphatase non-receptor type 22(PTPN22) detection. Tested with WB in Human;Rat.

**Reconstitution**

Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

**Anti-PTPN22 Picoband Antibody - Additional Information**

**Gene ID** 26191

**Other Names**

Tyrosine-protein phosphatase non-receptor type 22, 3.1.3.48, Hematopoietic cell protein-tyrosine phosphatase 70Z-PEP, Lymphoid phosphatase, LyP, PEST-domain phosphatase, PEP, PTPN22, PTPN8

**Calculated MW**

91705 MW KDa

**Application Details**

Western blot, 0.1-0.5 µg/ml, Human, Rat<br>

**Subcellular Localization**

Cytoplasm .

**Tissue Specificity**

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. .

**Protein Name**

Tyrosine-protein phosphatase non-receptor type 22

**Contents**

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na<sub>2</sub>HPO<sub>4</sub>, 0.05mg NaN<sub>3</sub>.

**Immunogen**

A synthetic peptide corresponding to a sequence at the N-terminus of human PTPN22 (1-42aa

MDQREILQKFLDEAQSCKITKEEFANEFLKLKRQSTKYKADK), different from the related mouse sequence by eight amino acids.

**Purification**

Immunogen affinity purified.

**Cross Reactivity**

No cross reactivity with other proteins.

**Storage**

**At -20°C for one year. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for a longer time. Avoid repeated freezing and thawing.**

**Anti-PTPN22 Picoband Antibody - 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 $\alpha$ /CD3 complex, as well as ZAP70, VAV, VCP and other key signaling molecules (PubMed: <a href="http://www.uniprot.org/citations/16461343" target="\_blank">16461343</a>, PubMed: <a href="http://www.uniprot.org/citations/18056643" target="\_blank">18056643</a>). Associates with and probably dephosphorylates CBL. Dephosphorylates LCK at its activating 'Tyr-394' residue (PubMed: <a href="http://www.uniprot.org/citations/21719704" target="\_blank">21719704</a>). Dephosphorylates ZAP70 at its activating 'Tyr-493' residue (PubMed: <a href="http://www.uniprot.org/citations/16461343" target="\_blank">16461343</a>). Dephosphorylates the immune system activator SKAP2 (PubMed: <a href="http://www.uniprot.org/citations/21719704" target="\_blank">21719704</a>). Positively regulates toll-like receptor (TLR)-induced type 1 interferon production (PubMed: <a href="http://www.uniprot.org/citations/23871208" target="\_blank">23871208</a>). Promotes host antiviral responses mediated by type 1 interferon (By similarity). Regulates NOD2-induced pro-inflammatory cytokine secretion and autophagy (PubMed: <a href="http://www.uniprot.org/citations/23991106" target="\_blank">23991106</a>). Acts as an activator of NLRP3 inflammasome assembly by mediating dephosphorylation of 'Tyr-861' of NLRP3 (PubMed: <a href="http://www.uniprot.org/citations/27043286" target="\_blank">27043286</a>). Dephosphorylates phospho-anandamide (p-AEA), an endocannabinoid to anandamide (also called N-arachidonylethanolamide) (By similarity).

**Cellular Location**

Cytoplasm {ECO:0000250|UniProtKB:P29352}.

**Tissue Location**

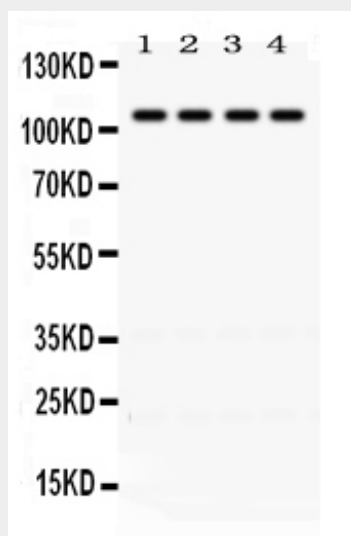
Expressed in bone marrow, B and T-cells, PBMCs, natural killer cells, monocytes, dendritic cells and neutrophils (PubMed:15208781). Both isoform 1 and 4 are predominantly expressed in lymphoid tissues and cells. Isoform 1 is expressed in thymocytes and both mature B and T-cells.

**Anti-PTPN22 Picoband Antibody - Protocols**

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

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

#### Anti-PTPN22 Picoband Antibody - Images



Anti- PTPN22 Picoband antibody, ABO12470, Western blotting All lanes: Anti PTPN22 (ABO12470) at 0.5ug/ml  
Lane 1: Rat Testis Tissue Lysate at 50ug  
Lane 2: Rat Thymus Tissue Lysate at 50ug  
Lane 3: HELA Whole Cell Lysate at 40ug  
Lane 4: 22RV1 Whole Cell Lysate at 40ug  
Predicted bind size: 108KD  
Observed bind size: 108KD

#### Anti-PTPN22 Picoband Antibody - Background

Protein tyrosine phosphatase, non-receptor type 22 (lymphoid), also known as PTPN22, is a protein that in humans is encoded by the PTPN22 gene. 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.