

CD3Z Antibody (N-term) Blocking Peptide
Synthetic peptide
Catalog # BP1413a**Specification**

CD3Z Antibody (N-term) Blocking Peptide - Product InformationPrimary Accession [P20963](#)**CD3Z Antibody (N-term) Blocking Peptide - Additional Information****Gene ID** 919**Other Names**

T-cell surface glycoprotein CD3 zeta chain, T-cell receptor T3 zeta chain, CD247, CD247, CD3Z, T3Z, TCRZ

Target/Specificity

The synthetic peptide sequence used to generate the antibody [AP1413a](/product/products/AP1413a) was selected from the N-term region of human CD3Z. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

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.

CD3Z Antibody (N-term) Blocking Peptide - Protein Information**Name** CD247**Synonyms** CD3Z, T3Z, TCRZ**Function**

Part of the TCR-CD3 complex present on T-lymphocyte cell surface that plays an essential role in adaptive immune response. When antigen presenting cells (APCs) activate T-cell receptor (TCR), TCR- mediated signals are transmitted across the cell membrane by the CD3 chains CD3D, CD3E, CD3G and CD3Z. All CD3 chains contain immunoreceptor tyrosine-based activation motifs (ITAMs) in their cytoplasmic domain. Upon TCR engagement, these motifs become phosphorylated by Src family protein tyrosine kinases LCK and FYN, resulting in the activation of downstream signaling pathways (PubMed: <http://www.uniprot.org/citations/2470098> target="_blank">2470098, PubMed: <http://www.uniprot.org/citations/7509083> target="_blank">7509083). CD3Z ITAMs phosphorylation creates multiple docking sites for

the protein kinase ZAP70 leading to ZAP70 phosphorylation and its conversion into a catalytically active enzyme (PubMed:7509083). Plays an important role in intrathymic T-cell differentiation. Additionally, participates in the activity-dependent synapse formation of retinal ganglion cells (RGCs) in both the retina and dorsal lateral geniculate nucleus (dLGN) (By similarity).

Cellular Location

Cell membrane {ECO:0000250|UniProtKB:P24161}; Single-pass type I membrane protein

Tissue Location

CD3Z is expressed in normal lymphoid tissue and in peripheral blood mononuclear cells (PBMCs) (PubMed:11722641)

CD3Z Antibody (N-term) Blocking Peptide - Protocols

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

- [Blocking Peptides](#)

CD3Z Antibody (N-term) Blocking Peptide - Images**CD3Z Antibody (N-term) Blocking Peptide - Background**

T-cell receptor zeta, together with T-cell receptor alpha/beta and gamma/delta heterodimers, and with CD3-gamma, -delta and -epsilon, forms the T-cell receptor-CD3 complex. The zeta chain plays an important role in coupling antigen recognition to several intracellular signal-transduction pathways. Low expression of the antigen results in impaired immune response.

CD3Z Antibody (N-term) Blocking Peptide - References

Miyagawa,H., Rheumatology (Oxford) 47 (2), 158-164 (2008)Gorman,C.L., J. Immunol. 180 (2), 1060-1070 (2008)Eleftheriadis,T., Am. J. Nephrol. 28 (1), 152-157 (2008)