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CD3Z Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP1413a

Specification

CD3Z Antibody (N-term) - Product Information

Application	**WB, FC,E**
Primary Accession	P20963
Other Accession	Q9XSJ9
Reactivity	**Human**
Predicted	**Pig**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Antigen Region	**2-31**

CD3Z Antibody (N-term) - 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
This CD3Z antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 2-31 amino acids from the N-terminal region of human CD3Z.

Dilution
WB~~1:1000
FC~~1:10~50
E~~Use at an assay dependent concentration.

Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
CD3Z Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

CD3Z Antibody (N-term) - 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:1384049, PubMed:1385158, PubMed:2470098, PubMed: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

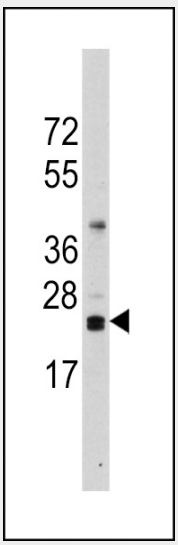
Tissue Location
CD3Z is expressed in normal lymphoid tissue and in peripheral blood mononuclear cells (PBMCs) (PubMed:11722641)

CD3Z Antibody (N-term) - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

CD3Z Antibody (N-term) - Images



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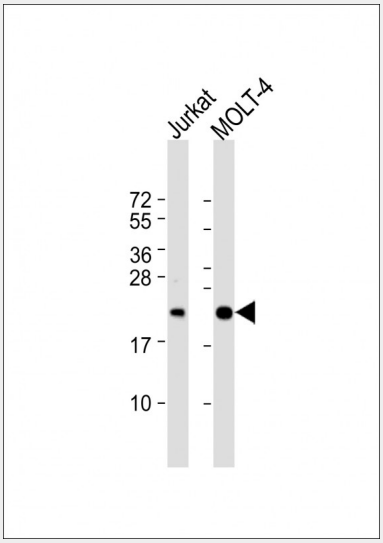
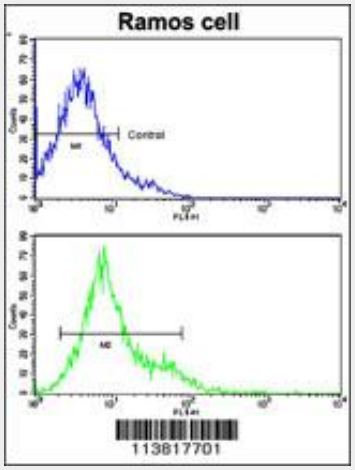
Western blot analysis of anti-CD3Z Antibody (N-term) (RB13817) in Ramos cell line lysates (35ug/lane). CD3Z(arrow) was detected using the purified Pab.



All lanes : Anti-CD3Z Antibody (N-term) at 1:1000 dilution Lane 1: Jurkat whole cell lysate Lane 2: MOLT-4 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 19 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



Flow cytometric analysis of Ramos cells using CD3Z Antibody (N-term) (bottom histogram) compared to a negative control cell (top histogram). FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

CD3Z Antibody (N-term) - 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) - 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)