

# CD3Z Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)  
Catalog # AP1413a

## Product Information

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<b>Application</b>	WB, FC, E
<b>Primary Accession</b>	<a href="#">P20963</a>
<b>Other Accession</b>	<a href="#">Q9XSJ9</a>
<b>Reactivity</b>	Human
<b>Predicted</b>	Pig
<b>Host</b>	Rabbit
<b>Clonality</b>	Polyclonal
<b>Isotype</b>	Rabbit IgG
<b>Clone Names</b>	RB13817
<b>Calculated MW</b>	18696
<b>Antigen Region</b>	2-31

## Additional Information

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<b>Gene ID</b>	919
<b>Other Names</b>	T-cell surface glycoprotein CD3 zeta chain, T-cell receptor T3 zeta chain, CD247, CD247, CD3Z, T3Z, TCRZ
<b>Target/Specificity</b>	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.
<b>Dilution</b>	WB~~1:1000 FC~~1:10~50 E~~Use at an assay dependent concentration.
<b>Format</b>	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.
<b>Storage</b>	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.
<b>Precautions</b>	CD3Z Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

## Protein Information

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<b>Name</b>	CD247
<b>Synonyms</b>	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 CD247/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](#)). CD247/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

Expressed in normal lymphoid tissue and in peripheral blood mononuclear cells (PBMCs) (PubMed:11722641)

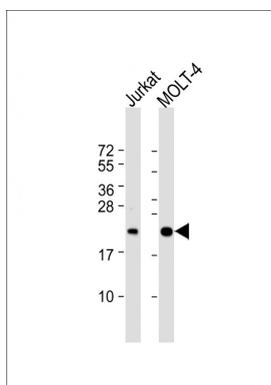
## Background

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.

## References

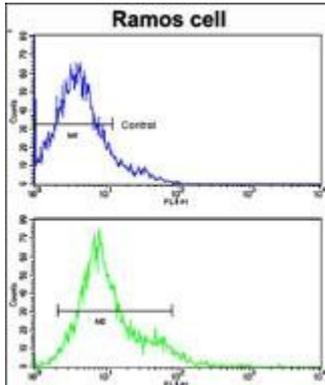
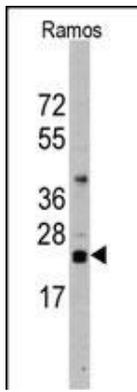
Miyagawa,H., Rheumatology (Oxford) 47 (2), 158-164 (2008)  
Gorman,C.L., J. Immunol. 180 (2), 1060-1070 (2008)  
Eleftheriadis,T., Am. J. Nephrol. 28 (1), 152-157 (2008)

## Images



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.

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.



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.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.