

**Phospho-CD3 zeta (Tyr142) Rabbit mAb**  
Catalog # AP75223**Specification****Phospho-CD3 zeta (Tyr142) Rabbit mAb - Product Information**

Application	WB
Primary Accession	<a href="#">P20963</a>
Reactivity	Human
Host	Rabbit
Clonality	Monoclonal Antibody
Calculated MW	18696

**Phospho-CD3 zeta (Tyr142) Rabbit mAb - Additional Information**

Gene ID 919

**Other Names**  
CD247**Dilution**  
WB~~1/500-1/1000**Format**  
Liquid**Phospho-CD3 zeta (Tyr142) Rabbit mAb - 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](http://www.uniprot.org/citations/1384049), PubMed: [1385158](http://www.uniprot.org/citations/1385158), PubMed: [2470098](http://www.uniprot.org/citations/2470098), PubMed: [7509083](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/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)

**Phospho-CD3 zeta (Tyr142) Rabbit mAb - 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](#)

**Phospho-CD3 zeta (Tyr142) Rabbit mAb - Images**