

CD3 zeta Antibody

Rabbit mAb Catalog # AP91026

Product Information

Application	IF, FC, ICC
Primary Accession	<u>P20963</u>
Reactivity	Human
Clonality	Monoclonal
Other Names	CD3-zeta; T-cell receptor T3 zeta chain; T3Z; TCRZ; CD247;
lsotype	Rabbit IgG
Host	Rabbit
Calculated MW	18696

Additional Information

Dilution Purification Immunogen Description	ICC/IF 1:100~1:200 FC 1:20 Affinity-chromatography A synthesized peptide derived from human CD3 zeta Defects in CD3D are a cause of severe combined immunodeficiency autosomal recessive T-cell-negative/B-cell-positive/NK-cell-positive
Storage Condition and Buffer	(T(-)/B(+)/NK(+) SCID) [MIM:608971]. A form of severe combined immunodeficiency (SCID), a genetically and clinically heterogeneous group of rare congenital disorders characterized by impairment of both humoral and cell-mediated immunity, leukopenia, and low or absent antibody levels. Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.

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: <u>1384049</u> , PubMed: <u>1385158</u> , PubMed: <u>2470098</u> , PubMed: <u>7509083</u>). 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: <u>7509083</u>). 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)

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