

# CD3e Antibody

Purified Rabbit Polyclonal Antibody (Pab)  
Catalog # AP53293

## Product Information

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<b>Application</b>	WB
<b>Primary Accession</b>	<a href="#">P07766</a>
<b>Reactivity</b>	Human, Mouse
<b>Host</b>	Rabbit
<b>Clonality</b>	Polyclonal
<b>Calculated MW</b>	23147

## Additional Information

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<b>Gene ID</b>	916
<b>Other Names</b>	T-cell surface glycoprotein CD3 epsilon chain, T-cell surface antigen T3/Leu-4 epsilon chain, CD3e, CD3E, T3E
<b>Target/Specificity</b>	KLH-conjugated synthetic peptide encompassing a sequence within the center region of human CD3e. The exact sequence is proprietary.
<b>Dilution</b>	WB~~ 1:1000
<b>Format</b>	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.09% (W/V) sodium azide and 50% glycerol
<b>Storage</b>	Store at -20 °C. Stable for 12 months from date of receipt

## Protein Information

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<b>Name</b>	CD3E
<b>Synonyms</b>	T3E
<b>Function</b>	Part of the TCR-CD3 complex present on T-lymphocyte cell surface that plays an essential role in adaptive immune response (PubMed: <a href="#">15294938</a> , PubMed: <a href="#">15546002</a> , PubMed: <a href="#">2470098</a> , PubMed: <a href="#">40592325</a> , PubMed: <a href="#">8490660</a> ). 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 (PubMed: <a href="#">2470098</a> , PubMed: <a href="#">40592325</a> ). All CD3 chains contain immunoreceptor tyrosine-based activation motifs (ITAMs) in their cytoplasmic domain (PubMed: <a href="#">2470098</a> , PubMed: <a href="#">40592325</a> ). 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: <a href="#">2470098</a> , PubMed: <a href="#">40592325</a> ). CD3E ITAM phosphorylation creates docking sites for the

protein kinase ZAP70 leading to ZAP70 phosphorylation and its conversion into a catalytically active enzyme (By similarity). In addition of this role of signal transduction in T-cell activation, CD3E plays an essential role in correct T-cell development (By similarity). Also participates in internalization and cell surface down-regulation of TCR-CD3 complexes via endocytosis sequences present in CD3E cytosolic region (PubMed:[10384095](#), PubMed:[26507128](#)). In addition to its role as a TCR coreceptor, it serves as a receptor for ITPR1L1 (PubMed:[38614099](#)). Ligand recognition inhibits T-cell activation by promoting interaction with NCK1, which prevents CD3E-ZAP70 interaction and blocks the ERK- NFkB signaling cascade and calcium influx (PubMed:[12110186](#), PubMed:[38614099](#)).

<b>Cellular Location</b>	Cell membrane; Single-pass type I membrane protein
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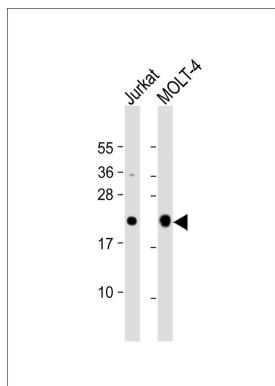
## Background

The CD3 complex mediates signal transduction.

## References

Gold D.P.,et al.Nature 321:431-434(1986).  
Terhorst C.,et al.Submitted (JAN-1987) to the EMBL/GenBank/DDBJ databases.  
Clevers H.C.,et al.Proc. Natl. Acad. Sci. U.S.A. 85:8156-8160(1988).  
Ota T.,et al.Nat. Genet. 36:40-45(2004).  
Mural R.J.,et al.Submitted (JUL-2005) to the EMBL/GenBank/DDBJ databases.

## Images



All lanes : Anti-CD3e Antibody 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 : 23 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

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