

CD3e Antibody
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP53293**Specification**

CD3e Antibody - Product Information

Application	WB
Primary Accession	P07766
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	23 KDa
Antigen Region	40-89

CD3e Antibody - Additional Information**Gene ID** 916**Other Names**

T-cell surface glycoprotein CD3 epsilon chain, T-cell surface antigen T3/Leu-4 epsilon chain, CD3e, CD3E, T3E

Dilution

WB~~ 1:1000

Format

Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.09% (W/V) sodium azide and 50% glycerol

Storage

Store at -20 °C.Stable for 12 months from date of receipt

CD3e Antibody - Protein Information**Name** CD3E**Synonyms** T3E**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:2470098). In addition of this role of signal transduction in T-cell activation, CD3E plays an essential role in correct T-cell development. Initiates the TCR-CD3 complex

assembly by forming the two heterodimers CD3D/CD3E and CD3G/CD3E. Also participates in internalization and cell surface down-regulation of TCR-CD3 complexes via endocytosis sequences present in CD3E cytosolic region (PubMed: [10384095](http://www.uniprot.org/citations/10384095), PubMed: [26507128](http://www.uniprot.org/citations/26507128)). In addition to its role as a TCR coreceptor, it serves as a receptor for ITPRIPL1. 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: [38614099](http://www.uniprot.org/citations/38614099)).

Cellular Location

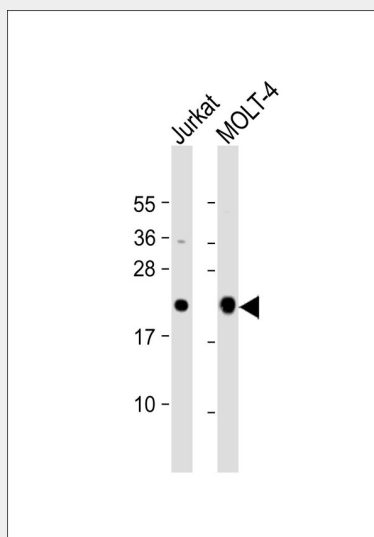
Cell membrane; Single-pass type I membrane protein

CD3e Antibody - 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](#)

CD3e Antibody - 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.

CD3e Antibody - Background

The CD3 complex mediates signal transduction.

CD3e Antibody - 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.