

**CD3E antibody [C-term]
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP22411b**

Specification

CD3E antibody [C-term) - Product Information

Application	WB,E
Primary Accession	P07766
Reactivity	Human
Host	Rabbit
Clonality	polyclonal
Isotype	Rabbit IgG
Calculated MW	23147

CD3E antibody [C-term) - 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

Target/Specificity

This antibody is generated from a rabbit immunized with a KLH conjugated synthetic peptide between amino acids from human.

Dilution

WB~~1:2000

Format

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.

Storage

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.

Precautions

CD3E antibody [C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

CD3E antibody [C-term) - 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. Participates also 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 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](#)).

Cellular Location

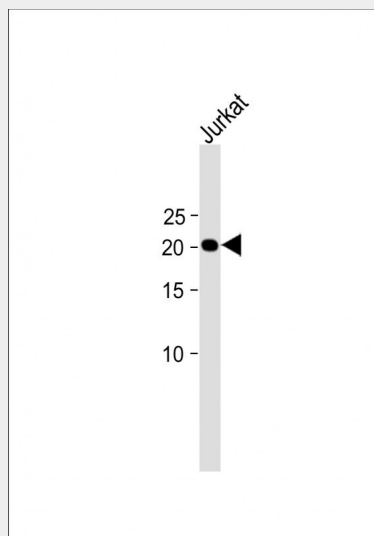
Cell membrane; Single-pass type I membrane protein

CD3E antibody (C-term) - Protocols

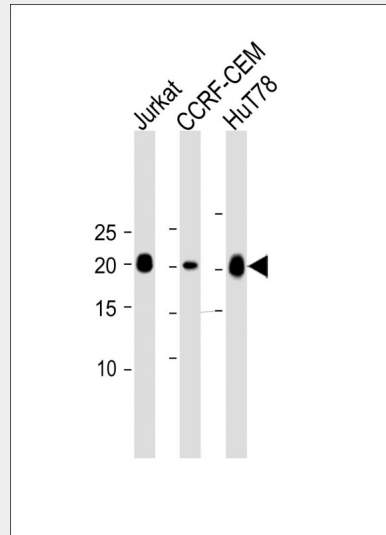
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

CD3E antibody (C-term) - Images



All lanes: Anti-CD3E antibody (C-term) at 1:2000 dilution + Jurkat whole cell lysate Lysates/proteins at 20 µg per lane. Secondary: Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated (ASP1615) at 1/15000 dilution. Observed band size: 23 KDa Blocking/Dilution buffer: 5% NFDM/TBST.



All lanes: Anti-CD3E antibody (C-term) at 1:2000 dilution Lane 1: Jurkat whole cell lysate Lane 2: CCRF-CEM whole cell lysate Lane 3: HuT78 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary: Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated (ASP1615) at 1/15000 dilution. Observed band size: 23 KDa Blocking/Dilution buffer: 5% NFDm/TBST.

CD3E antibody (C-term) - Background

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. Participates also in internalization and cell surface down-regulation of TCR-CD3 complexes via endocytosis sequences present in CD3E cytosolic region (PubMed:10384095, PubMed:26507128).

CD3E antibody (C-term) - 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.