

Rabbit CD3E Polyclonal Antibody | anti-CD3E antibody

CD3E Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA326359	Rabbit	Human, Mouse, Rat	ELISA, Immunocytochemistry, Immunofluorescence, Immunohistochemistry, Western Blot

PRODUCT SYNONYMS

CD3E; Polyclonal Antibody; CD3E Antibody; CD3 epsilon; CD3e; CD3e antigen epsilon polypeptide (TiT3 complex); CD3E antigen epsilon polypeptide; CD3E antigen; epsilon subunit; CD3e molecule epsilon; CD3e molecule; epsilon (CD3 TCR complex); epsilon (CD3-TCR complex); CD3E_HUMAN; IMD18; T cell antigen receptor complex epsilon subunit of T3; T cell surface antigen T3/Leu 4 epsilon chain; T cell surface glycoprotein CD3 epsilon chain; T-cell surface antigen T3/Leu-4 epsilon chain; T-cell surface glycoprotein CD3 epsilon chain; T3E; TCRe; anti-CD3E antibody

PRODUCT SPECIFICATIONS

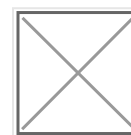
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	IgG
Specificity	CD3E antibody detects endogenous levels of total CD3E
Purity/Purification	The antiserum was purified by peptide affinity chromatography using SulfoLink Coupling Resin.
Form/Format	Liquid Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Sequence Length	207
Applicable Applications for anti-CD3E antibody	ELISA, ICC (Immunocytochemistry), IF (Immunofluorescence), IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	A synthesized peptide derived from human CD3E
Subcellular Location	Membrane.
Predicted Cross Reactivity	Pig, Bovine, Horse, Sheep, Rabbit, Dog, Chicken
Similarity	Pig (100%), Bovine (91%), Horse (91%), Sheep (100%), Rabbit (100%), Dog (91%), Chicken (80%)
Conjugation	Unconjugated
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

IMAGES



WB (Western Blot)

Western blot analysis of extracts from rat muscle, using CD3E Antibody.



IF (Immunofluorescence)

AAA326359 staining HepG2 cells by IF/ICC. The sample were fixed with PFA and permeabilized in 0.1% Triton X-100, then blocked in 10% serum for 45 minutes at 25 degree C. The primary antibody was diluted at 1/200 and incubated with the sample for 1 hour at 37 degree C. An Alexa Fluor 594 conjugated goat anti-rabbit IgG (H+L) antibody, diluted at 1/600, was used as secondary antibody.



IHC (Immunohistochemistry)

AAA326359 at 1/100 staining Human liver cancer tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary.



WB (Western Blot)

Western blot analysis of extracts of Jurkat, using CD3E antibody. The lane on the left is treated with the antigen-specific peptide.

ADDITIONAL INFORMATION

Related Product Information for anti-CD3E antibody

Description: When T cells encounter antigens via the T cell receptor (TCR), information about the quantity and quality of antigens is relayed to the intracellular signal transduction machinery (1). This activation process depends mainly on CD3 (Cluster of Differentiation 3), a multiunit protein complex that directly associates with the TCR. CD3 is composed of four polypeptides: zeta, gamma, epsilon and delta. Each of these polypeptides contains at least one immunoreceptor tyrosine-based activation motif (ITAM) (2). Engagement of TCR complex with foreign antigens induces tyrosine phosphorylation in the ITAM motifs and phosphorylated ITAMs function as docking sites for signaling molecules such as ZAP-70 and p85 subunit of PI-3 kinase (3, 4). TCR ligation also induces a conformational change in CD3epsilon, such that a proline-region is exposed and then associates with the adapter protein Nck (5).

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).

Subunit Structure: The TCR-CD3 complex is composed of a CD3D/CD3E and a CD3G/CD3E heterodimers that preferentially associate with TCRalpha and TCRbeta, respectively, to form TCRalpha/CD3E/CD3G and TCRbeta/CD3G/CD3E trimers. In turn, the hexamer interacts with CD3Z homodimer to form the TCR-CD3 complex. Alternatively, TCRalpha and TCRbeta can be replaced by TCRgamma and TCRdelta. Interacts with CD6 (PubMed:15294938). Interacts with NCK1 (PubMed:15972658). Interacts with NUMB; this interaction is important for TCR-CD3 internalization and subsequent degradation (PubMed:26507128).

Post-translational Modifications: Phosphorylated on Tyr residues after T-cell receptor triggering by LCK in association with CD4/CD8.

References

Guo X, Xue M, Li CJ, Yang W, Wang SS, Ma ZJ, Zhang XN, Wang XY, Zhao R, Chang BC, Chen LM; Journal: J Ethnopharmacol. Protective effects of triptolide on TLR4 mediated autoimmune and inflammatory response induced myocardial fibrosis in diabetic cardiomyopathy.

NCBI AND UNIPROT INFORMATION

NCBI GI #	4502671
NCBI GeneID	916
NCBI Accession #	NP_000724.1
NCBI GenBank Nucleotide #	NM_000733.3
UniProt Accession #	P07766 ; A8K997
Molecular Weight	Observed: 23 kDa Predicted: 24 kDa
NCBI Official Full Name	T-cell surface glycoprotein CD3 epsilon chain
NCBI Official Synonym Full Names	CD3e molecule
NCBI Official Symbol	CD3E

NCBI Official Synonym Symbols	T3E; TCRE; IMD18
NCBI Protein Information	T-cell surface glycoprotein CD3 epsilon chain
UniProt Protein Name	T-cell surface glycoprotein CD3 epsilon chain
UniProt Gene Name	CD3E
UniProt Synonym Gene Names	T3E

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/cd3e-antibody-immunocytochemistry-immunofluorescence-immunohistochemistry-western-blot-elisa/326359>