CD3e Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	CD3e, Polyclonal Antibody
Full Product Name	CD3e (CD 3E, CD3 epsilon, CD3 TCR complex, CD3E, CD3e antigen epsilon polypeptide (TiT3 complex), 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, T3E, TCR
Product Gene Name	anti-CD3e antibody
Clonality	Polyclonal
Isotype	IgG
Host	Rabbit
Species Reactivity	Human, Mouse
Form/Format	Supplied as a liquid in PBS, pH 7.2. No preservative added. Labeled with MaxLight405.
Purity/Purification	Purified by Protein A Affinity Chromatography.
Specificity	Recognizes human CD3e. Recognizes the e-chain of CD3, which consists of five different polypeptide chains (designated as gamma, delta, epsilon, zeta, and eta) with MW ranging from 16-28kD. Species Crossreactivity: mouse. Species sequence homology: elephant, gibbon, guinea pig, hamster, equine, rat, monkey, mouse, orangutan, porine, rabbit, sheep, ape, feline, chicken, chimpanzee, bovine, canine, frog, opossum
Preparation and Storage	Store product at 4 degree C in the dark. DO NOT FREEZE! Stable at 4 degree C for 12 months after receipt as an undiluted liquid. Dilute required amount only prior to immediate use. Further dilutions can be made in assay buffer. Caution: MaxLight405 conjugates are sensitive to light. For maximum recovery of product, centrifuge the original vial prior to removing the cap.
OMIM	gene 615615
3D Structure	ModBase 3D Structure for P07766
Immunogen	Synthetic peptide corresponding to aa156-168 of human CD3e (ERPPPVPNPDYEP). Cellular Localization: Cell surface and cytoplamic
Conjugate	MaxLight405
Positive Control	Jurkat cells. Tonsil and lymph node
Note	Preservative Free
Product Categories/Family for anti-CD3e antibody	Antibodies; CD Markers
Applications Tested/Suitable for anti-CD3e antibody	Western Blot (WB), Flow Cytometry (FC/FACS), Immunofluorescence (IF)
Application Notes for anti-CD3e antibody	Applications are based on unconjugated antibody.
Related Product Information for anti-CD3e antibody	The CD3 complex is closely associated at the lymphocyte cell surface with the T cell antigen receptor (TCR). Reportedly, CD3 complex is involved in signal transduction to the T cell interior following antigen recognition. The CD3 antigen is first detectable in early thymocytes and probably represents one of the earliest signs of commitment to the T cell lineage. In cortical thymocytes, CD3 is predominantly intra-cytoplasmic. However, in medullary thymocytes, it appears on the T cell surface. CD3 antigen is a highly specific marker for T cells, and is present in majority of T cell neoplasms.

Product References and Citations for anti-CD3e antibody	1. Cibull ML et. al. Histopathology, 1989, 15(6):599-605. 2. Mason DY et. al. Journal of Clinical Pathology, 1989, 42(11):1194-200.
Other Notes	Small volumes of anti-CD3e antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for CD3e purchase	MBS6403336 is an antibody targeting CD3e. Also known as CD3e (CD 3E, CD3 epsilon, CD3 TCR complex, CD3E, CD3e antigen epsilon polypeptide (TiT3 complex), 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, T3E, TCR. Reactive in Human, Mouse. Host: Rabbit.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for CD3e. It may not necessarily be applicable to this product.

NCBI GI #	4502671
NCBI GeneID	916
NCBI Accession #	NP_000724
UniProt Primary Accession #	P07766
UniProt Secondary Accession #	A8K997
UniProt Related Accession #	P07766
GenBank Nucleotide #	NM_000733.3
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
UniProt Protein Name	T-cell surface glycoprotein CD3 epsilon chain
UniProt Synonym Protein Names	T-cell surface antigen T3/Leu-4 epsilon chain; CD_antigen: CD3e
Protein Family	T-cell surface glycoprotein
UniProt Gene Name	CD3E
UniProt Synonym Gene Names	T3E
UniProt Entry Name	CD3E_HUMAN
NCBI Protein Information	T-cell surface glycoprotein CD3 epsilon chain
NCBI Summary for CD3e	The protein encoded by this gene is the CD3-epsilon polypeptide, which together with CD3-gamma, -delta and -zeta, and the T-cell receptor alpha/beta and gamma/delta heterodimers, forms the T-cell receptor-CD3 complex. This complex plays an important role in coupling antigen recognition to several intracellular signal-transduction pathways. The genes encoding the epsilon, gamma and delta polypeptides are located in the same cluster on chromosome 11. The epsilon polypeptide plays an essential role in T-cell development. Defects in this gene cause immunodeficiency. This gene has also been linked to a susceptibility to type I diabetes in women. [provided by RefSeq, Jul 2008]

UniProt Comments for CD3e	CD3E: a T cell surface glycoprotein that is a component of the T cell antigen receptor. The recruitment of Nck by CD3 epsilon reveals a ligand-induced conformational change essential for T cell receptor signaling and synapse formation. Contains 1 immunoglobulin-like domain and 1 ITAM domain. Protein type: Receptor, misc.; Membrane protein, integral Chromosomal Location of Human Ortholog: 11q23 Cellular Component: T cell receptor complex; integral to plasma membrane; plasma membrane; immunological synapse; alpha-beta T cell receptor complex; intercellular junction; external side of plasma membrane Molecular Function: protein binding; transmembrane receptor activity; receptor signaling complex scaffold activity; protein heterodimerization activity; receptor signaling protein activity; T cell receptor binding; SH3 domain binding; protein kinase binding Biological Process: regulation of immune response; T cell activation; positive regulation of interleukin-2 biosynthetic process; signal complex assembly; positive regulation of calcium-mediated signaling; negative thymic T cell selection; T cell receptor signaling pathway; positive regulation of interleukin-4 production; regulation of apoptosis; G-protein coupled receptor protein signaling pathway; positive regulation of interferon-gamma production; positive regulation of peptidyl-tyrosine phosphorylation; cell surface receptor linked signal transduction; negative regulation of smoothened signaling pathway; T cell costimulation; protein complex assembly; positive regulation of alpha-beta T cell proliferation; positive regulation of T cell proliferation; positive regulation of T cell anergy; transmembrane receptor protein tyrosine kinase signaling pathway; response to nutrient Disease: Immunodeficiency 18
Research Articles on CD3e	**1.** A novel pathogenic frameshift variant of CD3E gene has been found in two unrelated T-B+ NK+ severe combined immunodeficiency infants from Turkey.
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