CD3 Antibody – Mouse Monoclonal

PRODUCT OVERVIEW

Product Name	CD3, Monoclonal Antibody
Full Product Name	Anti-Human CD3 Monoclonal Antibody (PE/Cy5.5 Conjugated)
Product Gene Name	anti-CD3 antibody
Product Synonym Names	T-cell surface glycoprotein CD3 epsilon chain; CD3E; T-cell surface antigen T3/Leu-4 epsilon chain; CD3e; CD3E; T3E
Clonality	Monoclonal
Isotype	IgG2a
Clone Number	OKT-3
Host	Mouse
Species Reactivity	Human
Form/Format	PBS with 0.05% Proclin300, 1% BSA
Preparation and Storage	Store at 2-8 degree C and protect from prolonged exposure to light. Do not freeze.
Matching Pairs	Antibody: CD3 (MBS2558044) Isotype Control: IgG2a Clone #C1.18.4 (MBS2557764)
OMIM	gene 615615
3D Structure	ModBase 3D Structure for P07766
Conjugation	PE/Cy5.5
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Applications Tested/Suitable for anti-CD3 antibody	Flow Cytometry (FC/FACS)
Related Product Information for anti-CD3 antibody	CD3epsilon is a 20 kD chain of the CD3/T cell receptor (TCR) complex, which is composed of two CD3epsilon, one CD3gamma, one CD3delta, one CD3zeta (CD247), and a T cell receptor (alpha/beta or gamma/delta) heterodimer. It is found on all mature T lymphocytes, NK T cells, and some thymocytes. CD3, also known as T3, is a member of the immunoglobulin superfamily that plays a role in antigen recognition, signal transduction, and T cell activation.
Other Notes	Small volumes of anti-CD3 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 CD3 purchase	MBS2558044 is an antibody targeting CD3. Also known as Anti-Human CD3 Monoclonal Antibody (PE/Cy5.5 Conjugated). Reactive in Human. Host: Mouse.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for CD3. It may not necessarily be applicable to this product.

NCBI GI #	1345708
NCBI GeneID	916
NCBI Accession #	P07766.2
UniProt Primary Accession #	P07766

UniProt Related Accession #	P07766
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	CD302 antigen
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 CD3	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 CD3	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 CD3	**1.** The ionic CD3-epsilon -Lck interaction controls the phosphorylation level of the T-cell receptor.
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