

## Product datasheet for **AM12063LE-N**

### CD3E Mouse Monoclonal Antibody [Clone ID: OKT3]

#### Product data:

Product Type:	Primary Antibodies
Clone Name:	OKT3
Applications:	FC, FN, IHC
Recommended Dilution:	<b>Flow Cytometry:</b> 1 µg/ml. <b>Immunohistochemistry on Frozen Sections.</b> <b>Functional Studies:</b> counteracting both generation and function of effector T cells.
Reactivity:	Human
Host:	Mouse
Isotype:	IgG2a
Clonality:	Monoclonal
Immunogen:	Proprietary information
Specificity:	The antibody recognizes the CD3 antigen of the TCR/CD3 complex on mature Human T cells. This antibody, also known as Orthoclone OKT3 or Muromonab-CD3, has been extensively used as a drug for therapy of acute, glucocorticoid resistant rejection of allogenic renal, heart and liver transplants. It has also been investigated for use in treating T-cell acute lymphoblastic leukemia.
Formulation:	Azide free PBS, pH~7.4 Product is 0.2 µm filter sterilized. State: Low Endotoxin State: Liquid purified Ig fraction (> 95% pure by SDS-PAGE) Preservative: None
Concentration:	lot specific
Purification:	Affinity Chromatography on Protein A
Conjugation:	Unconjugated
Storage:	Store undiluted at 2-8°C. <b>DO NOT FREEZE!</b>
Stability:	Shelf life: one year from despatch.
Gene Name:	CD3e molecule



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**Database Link:** [Entrez Gene 916 Human P07766](#)

**Background:** CD3 complex is crucial in transducing antigen-recognition signals into the cytoplasm of T cells and in regulating the cell surface expression of the TCR complex. T cell activation through the antigen receptor (TCR) involves the cytoplasmic tails of the CD3 subunits CD3 gamma, CD3 delta, CD3 epsilon and CD3 zeta. These CD3 subunits are structurally related members of the immunoglobulins super family encoded by closely linked genes on human chromosome 11. The CD3 components have long cytoplasmic tails that associate with cytoplasmic signal transduction molecules. This association is mediated at least in part by a double tyrosine-based motif present in a single copy in the CD3 subunits. CD3 may play a role in TCR-induced growth arrest, cell survival and proliferation. The CD3 antigen is present on 68-82% of normal peripheral blood lymphocytes, 65-85% of thymocytes and Purkinje cells in the cerebellum. It is never expressed on B or NK cells. Decreased percentages of T lymphocytes may be observed in some autoimmune diseases.

**Synonyms:** T3/Leu-4

**Protein Families:** Druggable Genome, Transmembrane

**Protein Pathways:** Hematopoietic cell lineage, Primary immunodeficiency, T cell receptor signaling pathway