

## Product datasheet for **SM3017B**

### CD3E Mouse Monoclonal Antibody [Clone ID: MEM-57]

#### Product data:

Product Type:	Primary Antibodies
Clone Name:	MEM-57
Applications:	FC
Recommended Dilution:	<b>Flow cytometry</b> (starting point 1/300).
Reactivity:	Human
Host:	Mouse
Isotype:	IgG2a
Clonality:	Monoclonal
Immunogen:	Human thymocytes and T lymphocytes
Specificity:	The antibody MEM-57 reacts with gamma-epsilon and delta-epsilon dimers of human CD3 complex, a part of a bigger multisubunit T cell receptor complex (CD3/TCR) expressed on peripheral blood T lymphocytes and mature thymocytes.
Formulation:	Phosphate buffered saline (PBS) with 15 mM sodium azide, approx. pH 7.4 Label: Biotin State: Liquid purified Ig fraction Label: Conjugated with Biotin-LC-NHS under optimum conditions. The reagent is free of unconjugated biotin.
Concentration:	lot specific
Conjugation:	Biotin
Storage:	Store the antibody undiluted at 2 - 8 °C. DO NOT FREEZE!
Stability:	Shelf life: one year from despatch.
Gene Name:	CD3e molecule
Database Link:	<a href="#">Entrez Gene 916 Human P07766</a>



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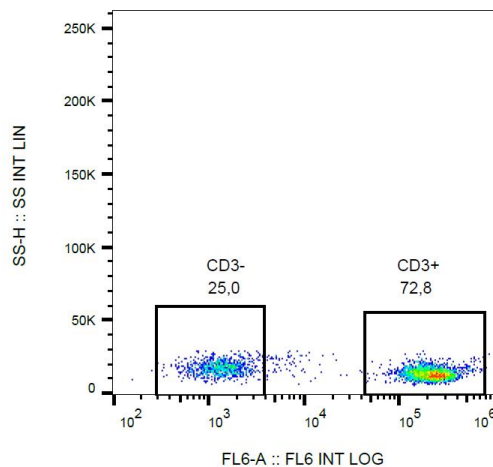
**Background:**

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

**Product images:**

Surface staining of CD3 in human peripheral blood with anti-CD3 (MEM-57) biotin, streptavidin-APC.