

anti-human CD3 (no azide)

monoclonal antibody MEM-57 to human CD3

Cat-No: **21270030**

100 µg in 100 µl

Clone: MEM-57

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.

HLDA IV.; WS Code T 96

Immunogen: Human thymocytes and T lymphocytes.

Isotype subclass: Mouse IgG2a

Form: Purified from ascites by protein-A affinity chromatography.

Purity: > 98% (by SDS-PAGE)

Physical state: Liquid

Buffer/Additives/Preservative: PBS (sterile), (pH 7.4)

Expiration date: The reagent is stable until the expiry date stated on the vial label.

Storage conditions:

Aliquot and store at -20°C. Avoid freeze/thaw cycles. Should be handled under aseptic conditions.

Application:

Flow Cytometry: Recommended dilution: 2-5µg/ml

Positive Control: Peripheral Blood Lymphocytes

Jurkat T cell line

Immunoprecipitation: The antibody MEM-57 immunoprecipitation from a detergent lysate of surface-radioiodinated T cells a Strong zone of about 22 kDa and a weak 28-kDa zone, which is typical pattern yielded by a reference antibody Leu-4 (SK7).

Functional Application: The antibody MEM-57 has a mitogenic effect on peripheral T Lymphocytes.

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.

References:

*Huang Y, Wange RL: T cell receptor signaling: beyond complex complexes. J Biol Chem. 2004 Jul 9;279(28):28827-30.

*Kuhns MS, Davis MM, Garcia KC: Deconstructing the form and function of the TCR/CD3 complex. Immunity. 2006 Feb;24(2):133-9.

This material is offered for **research only**. Not for use in human. For in vitro use only. ImmunoTools will not be held responsible for patent infringement or other violations that may occur with the use of our products.

ImmunoTools Excellent Quality - Advantageously priced

ImmunoTools GmbH - Altenoyther Str. 10; 26169 Friesoythe; Germany

Tel +49-(0)4491-400997, Fax +49-(0)4491-400998, info@immunotools.com

www.immunotools.com