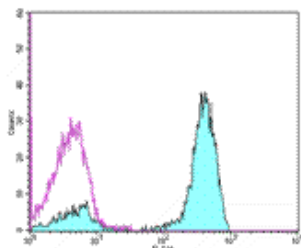


Anti-Human CD3 Functional Grade Purified

Catalog Number: 16-0037

Also Known As: Leu-4, T3

RUO: For Research Use Only. Not for use in diagnostic procedures.



Staining of normal human peripheral blood cells with 0.125 ug of Mouse IgG2a K Isotype Control Purified (cat.16-4724) (open histogram) or Anti-Human CD3 Functional Grade Purified (filled histogram) followed by Anti-Mouse IgG FITC (cat. 11-4011). Cells in the lymphocyte gate were used for analysis.

Product Information

Contents: Anti-Human CD3 Functional Grade Purified

REF **Catalog Number:** 16-0037

Clone: OKT3

Concentration: 1 mg/mL


Host/Isotype: Mouse IgG2a, kappa

HLDA Workshop: VI T6T-R3


Handling Conditions: Use in sterile environment.

Endotoxin Level: Less than 0.001 ng/ug antibody, as determined by the LAL assay.

Formulation: aqueous buffer, no sodium azide

 **Temperature Limitation:** Store at 2-8°C.

LOT **Batch Code:** Refer to Vial

 **Use By:** Refer to Vial

Description

The OKT3 monoclonal antibody reacts with an epitope on the epsilon-subunit within the human CD3 complex. The OKT3 antibody has been reported to have potent immunosuppressive properties in vivo and has been proven effective in the treatment of renal, heart and liver allograft rejection. The CD3 subunits, gamma, delta, and epsilon chains, are required for proper assembly, trafficking and surface expression of the TCR complex. CD3 is expressed by thymocytes in a developmentally regulated manner and by all mature T cells. Crosslinking of TCR initiates an intracellular biochemical pathway resulting in cellular activation and proliferation.

Applications Reported

The OKT3 antibody has been reported for use in flow cytometric analysis. OKT3 has also been reported for in vitro activation of T cells.

Applications Tested

The OKT3 antibody has been tested by flow cytometric analysis of human peripheral blood leukocytes. This can be used at less than or equal to 0.25 µg per test. A test is defined as the amount (µg) of antibody that will stain a cell sample in a final volume of 100 µL. Cell number should be determined empirically but can range from 10⁵ to 10⁸ cells/test. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

References

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Hutchcroft JE, Tsai B, Bierer BE. Differential phosphorylation of the T lymphocyte costimulatory receptor CD28. *J Biol Chem.* 1996 Jun 7;271(23):13362-70.

Adair JR, Athwal DS, Bodmer MW, Bright SM, Collins AM, Pulito VL, Rao PE, Reedman R, Rothermel AL, Xu D, et al. Humanization of the murine anti-human CD3 monoclonal antibody OKT3. *Hum Antibodies Hybridomas.* 1994;5(1-2):41-7.

Kung PC and Goldstein G. Complement-fixing monoclonal antibody to human T cells, and methods of preparing same. U.S. Pat. 4,361,549 dated Nov. 30, 1982.

Hoffman RA, Kung PC, Hansen WP, Goldstein G. Simple and rapid measurement of human T lymphocytes and their subclasses in peripheral blood. *Proc Natl Acad Sci U S A.* 1980 Aug;77(8):4914-7.

Related Products

12-4016 F(ab)'₂ Anti-Mouse IgG PE

16-4724 Mouse IgG2a K Isotype Control Functional Grade Purified

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