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Monoclonal Antibody to CD3 - PE

Alternate names: T-cell surface antigen T3/Leu-4, T-cell surface glycoprotein CD3, T3/Leu-4

Catalog No.: SM1057R

Quantity: 100 Tests

Concentration: 0.1 mg/ml

Background: 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.

Uniprot ID: P07766

NCBI: NP_000724.1

GeneID: 916

Host / Isotype: Mouse / IgG1

Clone: UCHT1

Immunogen: Human infant thymocytes and lymphocytes from a patient with Sezary Syndrome.

Format:
State: Lyophilized purified IgG fraction.
Purification: Affinity chromatography on Protein G
Buffer System: PBS, pH 7.2 containing 0.09% Sodium Azide as preservative and 1% BSA as stabilizer.
Label: PE – R. Phycoerythrin (RPE)
Reconstitution: Restore with distilled water.

Applications:
Flow cytometry.
Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.

Specificity:
This antibody recognises CD3, a 19 kD cell surface protein which is expressed on more than 95% of circulating peripheral blood T-cells.
Species: Human, Cynomolgus monkey, Monkey and Chimpanzee.
Other species not tested.

For research and in vitro use only. Not for diagnostic or therapeutic work.
Material Safety Datasheets are available at www.acris-antibodies.com or on request.

Antibody Hotline - Technical Questions - Antibody Location Service
Free Call: 0800-2274746 (Germany only) - www.acris-antibodies.com

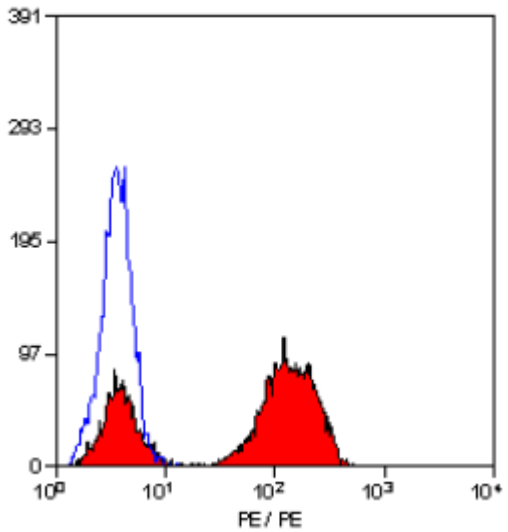
Storage:

Store the antibody undiluted at 2-8°C.
DO NOT FREEZE!
This product is photosensitive and should be protected from light.
Shelf life: one year from despatch.

General References:

1. Beverley, P.C.L. and Callard, R.E. (1981) Distinctive functional characteristics of human T lymphocytes defined by E rosetting or a monoclonal anti T-cell antibody. Eur. J. Immunol. 11: 329-34.
2. Kung, P. et al. (1979) Monoclonal antibodies defining distinctive human T cell surface antigens. Science. 206: 347-9.
3. Clevers, H. et al. (1988) The transmembrane orientation of the epsilon chain of the TcR/CD3 complex. Eur. J. Immunol. 18: 705-10.
4. Clevers, H. et al. (1988) The T cell receptor/CD3 complex: a dynamic protein ensemble. Annu. Rev. Immunol. 6: 629-62.
5. Meuer, S.C. et al. (1983) Evidence for the T3-associated 90 k heterodimer as the T cell antigen receptor. Nature 303: 808-10.
6. Clark, E.A. et al. (1989) Leucocyte cell surface enzymology: CD45 (LCA, T200) is a protein tyrosine phosphatase. Immunology Today 10: 225-8.
7. Campana, D. et al. (1987) The cytoplasmic expression of CD3 antigens in normal and malignant cells of the T lymphoid lineage. J. Immunol. 138: 648-55.
8. Erber, W.N. et al. (1984) Immunocytochemical detection of T cell and B cell populations in routine blood smears. Lancet 1(8385): 1042-6.
9. Erber, W.N. et al. (1986) APAAP labelling of blood and bone-marrow samples for phenotyping leukaemia. Lancet 1(8484): 761-5.
10. Denning, S.M. et al. (1987) Activation of human thymocytes via CD3 and CD2 molecules. In McMichael, A.J. et al. Leucocyte Typing III: White Cell Differentiation Antigens. Edited by Oxford University Press pp 144-7.
11. Grogan, T.M. et al. (1985) Peripheral T cell lymphoma: aggressive disease with heterogeneous immunotypes. Am. J. Clin. Pathol. 83: 271-88.
12. Clark, E.A. et al. (1983) Evolution of epitopes on human and non-human primate lymphoid cell surface antigens. Immunogenetics 18: 599-615.

Pictures:



Staining of human peripheral blood lymphocytes with Mouse Anti Human CD3-RPE.