

## Monoclonal Antibody to CD3 (Cytopl. Dom.) - FITC

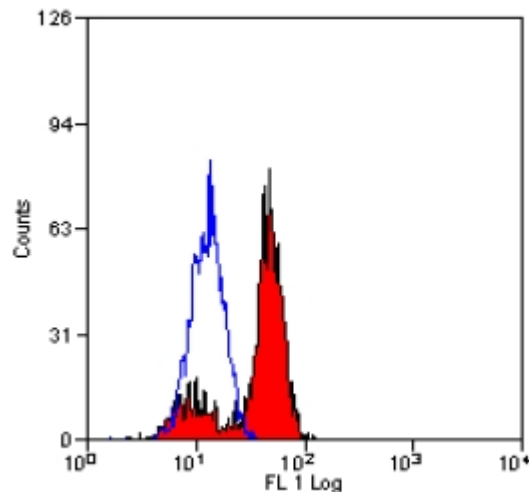
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|-------------------------|---|
| <b>Alternate names:</b> | T-cell surface antigen T3/Leu-4, T-cell surface glycoprotein CD3, T3/Leu-4  |
| <b>Catalog No.:</b>     | SM1754F   |
| <b>Quantity:</b>        | 0.1 mg  |
| <b>Concentration:</b>   | 0.1 mg/ml   |
| <b>Background:</b>      | <p>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.</p> |
| <b>Uniprot ID:</b>      | <a href="#">P07766</a>  |
| <b>NCBI:</b>            | <a href="#">NP_000724.1</a>   |
| <b>GeneID:</b>          | <a href="#">916</a>   |
| <b>Host / Isotype:</b>  | Rat / IgG1  |
| <b>Clone:</b>           | CD3-12  |
| <b>Immunogen:</b>       | Synthetic peptide sequence derived from cytoplasmic epitope of CD3.<br><b>AA Sequence:</b><br>Glu-Arg-Pro-Pro-Val-Pro-Asn-Pro-Asp-Tyr-Glu-Pro-Cys   |
| <b>Format:</b>          | <b>State:</b> Liquid purified IgG fraction.<br><b>Purification:</b> Affinity Chromatography on Protein G.<br><b>Buffer System:</b> PBS, pH 7.4 containing 0.09% Sodium Azide as preservative and 1% BSA as stabilizer.<br><b>Label:</b> FITC – Fluorescein Isothiocyanate Isomer 1  |
| <b>Applications:</b>    | Flow Cytometry: Use 10 µl of 1/5-1/10 diluted antibody to label 10e6 cells in 100 µl. Membrane permeabilisation is required. We recommend use of Leucoperm for this purpose.<br>Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.  |

**For research and in vitro use only. Not for diagnostic or therapeutic work.**

Material Safety Datasheets are available at [www.acris-antibodies.com](http://www.acris-antibodies.com) or on request.

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

- Specificity:** This antibody recognises a highly conserved epitope of the CD3 molecule expressed by T lymphocytes.  
**Species:** Human. Cross reacts with Bovine, Dog, Horse, Rhesus Monkey, Pig, Mouse and Chicken.  
Other species not tested.
- Storage:** Store the antibody undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. This product is photosensitive and should be protected from light.  
Avoid repeated freezing and thawing.  
Shelf life: one year from despatch.
- Product Citation:** Unconjugated antibody is cited in:  
1. Binita Shrestha, Teruto Hashiguchi, Takashi Ito, Naoki Miura, Kazunori Takenouchi, Yoko Oyama, Ko-ichi Kawahara, Salunya Tancharoen, Yuya Ki-i, Noboru Arimura, Narimasa Yoshinaga, Satoshi Noma, Chandan Shrestha, Takao Nitanda, Shinichi Kitajima, Kimiyoshi Arimura, Masahiro Sato, Taiji Sakamoto, and Ikuro Maruyama: B Cell-Derived Vascular Endothelial Growth Factor A Promotes Lymphangiogenesis and High Endothelial Venule Expansion in Lymph Nodes; *J. Immunol.*, May 2010; 184: 4819 - 4826.
- General References:** 1. Jones, M. et al. (1993) Detection of T and B cells in many animal species using cross-reactive anti-peptide antibodies. *J. Immunol.* 150: 5429-5435.  
2. Alterio de Goss, M. et al. (1998) Control of cytomegalovirus in bone marrow transplantation chimeras lacking the prevailing antigen-presenting molecule in recipient tissues rests primarily on recipient-derived CD8 T cells. *J. Virol.* 72: 7733-7744.  
3. Burudi, E. M. et al. (2002) Regulation of indoleamine 2, 3-dioxygenase expression in Simian Immunodeficiency Virus-infected monkey brains. *J. Virol.* 76: 12233-12241.  
4. Shulga Morskaya, S. et al. (2004) B Cell-Activating Factor Belonging to the TNF Family Acts through Separate Receptors to Support B Cell Survival and T Cell-Independent Antibody Formation. *J. Immunol.* 173: 2331-2341.  
5. Kapturczak, M. H. et al. (2004) Heme oxygenase-1 modulates early inflammatory responses: evidence from the heme oxygenase-1-deficient mouse. *Am. J. Pathol.* 165: 1045-1053.

**Pictures:**

Staining of human peripheral blood lymphocytes with Rat Anti Human CD3 (SM1754F) following permeabilisation with Leucoperm.

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