

Product datasheet for **SM1754F**

CD3E (Cytopl. Dom.) Rat Monoclonal Antibody [Clone ID: CD3-12]

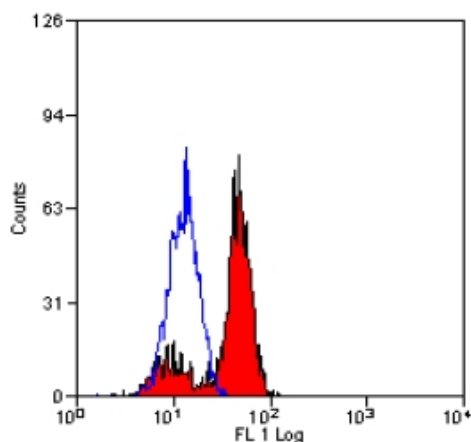
Product data:

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| Product Type: | Primary Antibodies |
| Clone Name: | CD3-12 |
| Recommended Dilution: | Flow Cytometry: Use 10 µl of 1/5-1/10 diluted antibody to label 10 ⁶ cells in 100 µl. Membrane permeabilisation is required. We recommend use of Leucoperm for this purpose. |
| Reactivity: | Bovine, Canine, Chicken, Equine, Human, Monkey, Porcine |
| Host: | Rat |
| Isotype: | IgG1 |
| Clonality: | Monoclonal |
| Immunogen: | Synthetic peptide sequence derived from cytoplasmic epitope of CD3. |
| Specificity: | <p>This antibody is raised against a peptide representing an invariant cytoplasmic sequence within the CD3ε chain recognizes human CD3ε. CD3 is a multimeric protein complex composed of four distinct polypeptide chains (ε, γ, δ, ζ) that assemble and function as three pairs of dimers (εγ, εδ, ζζ). The CD3 complex serves as a T cell coreceptor that associates non-covalently with the T cell receptor (TCR) (Malissen 2008; Guy and Vignali 2009; Smith-Garvin et al. 2009). CD3 is a defining feature of cells belonging to the T cell lineage and can therefore be used as T cell marker.</p> <p>As Rat anti Human CD3, clone CD3-12 has been specifically raised against an epitope within the epsilon peptide chain, highly conserved among species clone CD3-12 has a very broad species crossreactivity for the CD3 marker. (Jones et al. 1993; Kothlow et al. 2005)</p> |
| Formulation: | <p>PBS, pH 7.4 Label: FITC State: Liquid purified IgG fraction. Stabilizer: 1% BSA Preservative: 0.09% Sodium Azide Label: Fluorescein Isothiocyanate Isomer 1</p> |
| Concentration: | lot specific |
| Purification: | Affinity Chromatography on Protein G from tissue culture supernatant |
| Conjugation: | FITC |



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| Storage: | Store 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. |
| Stability: | Shelf life: one year from despatch. |
| Gene Name: | CD3e molecule |
| Database Link: | Entrez Gene 916 Human P07766 |
| 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. |
| Synonyms: | T3/Leu-4 |

Product images:

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