

Monoclonal Antibody to CD3 - FITC

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

Catalog No.: AM05528FC-N

Quantity: 0.1 mg

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: [P27597](#)

NCBI: [NP_001003379.1](#)

GeneID: [442981](#)

Host / Isotype: Mouse / IgG1

Clone: CA17.2A12

Format: **State:** Liquid purified IgG

Purification: Affinity chromatography on Protein G

Buffer System: Phosphate buffered saline pH7.4 containing 0.09% Sodium Azide, 1% Bovine Serum Albumin

Label: FITC – Fluorescein Isothiocyanate Isomer 1

Applications: Flow Cytometry.

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

Specificity: This antibody recognises the canine CD3 cell surface antigen, expressed by mature T lymphocytes. This antibody should not be used with AM05866RP-N (mouse anti canine B-cells), in dual colour flow cytometry, due to non-specific interactions between the two reagents.

Species: Canine.

Other species not tested.

- Storage:** Store the antibody undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing. This product is photosensitive and should be protected from light. Shelf life: one year from despatch.
- Caution:** (A full Health and Safety assessment is available upon request) This product contains sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
- General Readings:**
1. McDonough SP, Moore PF. Clinical, hematologic, and immunophenotypic characterization of canine large granular lymphocytosis. *Vet Pathol.* 2000 Nov;37(6):637-46. PubMed PMID: 11105953.
 2. Moore, P.F. and Rossitto, P.V. (1993) Development of monoclonal antibodies to canine T cell receptor complex (TCR/CD3) and their utilisation in the diagnosis of T cell neoplasia. *Vet. Pathol.* 30: 457.
 3. Moore PF, Affolter VK, Vernau W. Canine hemophagocytic histiocytic sarcoma: a proliferative disorder of CD11d+ macrophages. *Vet Pathol.* 2006 Sep;43(5):632-45. PubMed PMID: 16966440.
 4. Vernau W, Moore PF. An immunophenotypic study of canine leukemias and preliminary assessment of clonality by polymerase chain reaction. *Vet Immunol Immunopathol.* 1999 Aug 2;69(2-4):145-64. PubMed PMID: 10507302.
 5. Moreno J, Nieto J, Chamizo C, González F, Blanco F, Barker DC, et al. The immune response and PBMC subsets in canine visceral leishmaniasis before, and after, chemotherapy. *Vet Immunol Immunopathol.* 1999 Nov 30;71(3-4):181-95. PubMed PMID: 10587300.
 6. Byrne KM, Kim HW, Chew BP, Reinhart GA, Hayek MG. A standardized gating technique for the generation of flow cytometry data for normal canine and normal feline blood lymphocytes. *Vet Immunol Immunopathol.* 2000 Feb 25;73(2):167-82. PubMed PMID: 10690932.
- Pictures:** This antibody staining of canine peripheral blood lymphocytes.

