

30-2782: Anti-Hu CD4 FITC

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| Clonality : | Monoclonal |
| Clone Name : | EM4 |
| Application : | FACS |
| Reactivity : | Human |
| Conjugate : | FITC |
| Gene : | CD4 |
| Gene ID : | 920 |
| Uniprot ID : | P01730 |
| Alternative Name : | CD4 molecule T4/Leu-3, L3T4 |
| Immunogen Information : | Normal human blood lymphocytes |

Description

CD4 (T4) is a single chain transmembrane glycoprotein and belongs to immunoglobulin supergene family. In extracellular region there are 4 immunoglobulin-like domains (1 Ig-like V-type and 3 Ig-like C2-type). Transmembrane region forms 25 aa, cytoplasmic tail consists of 38 aa. Domains 1,2 and 4 are stabilized by disulfide bonds. The intracellular domain of CD4 is associated with p56Lck, a Src-like protein tyrosine kinase. It was described that CD4 segregates into specific detergent-resistant T-cell membrane microdomains. Extracellular ligands: MHC class II molecules (binds to CDR2-like region in CD4 domain 1); HIV envelope protein gp120 (binds to CDR2-like region in CD4 domain 1); IL-16 (binds to CD4 domain 3), human seminal plasma glycoprotein gp17 (binds to CD4 domain 1), L-selectin. Intracellular ligands: p56LckCD4 is a co-receptor involved in immune response (co-receptor activity in binding to MHC class II molecules) and HIV infection (human immunodeficiency virus; CD4 is primary receptor for HIV-1 surface glycoprotein gp120). CD4 regulates T-cell activation, T/B-cell adhesion, T-cell differentiation, T-cell selection and signal transduction. Defects in antigen presentation (MHC class II) cause dysfunction of CD4+ T-cells and their almost complete absence in patients blood, tissue and organs (SCID immunodeficiency).

Specificity : The mouse monoclonal antibody EM4 recognizes an extracellular epitope of CD4 antigen, a 55 kDa transmembrane glycoprotein expressed on a subset of T lymphocytes ("helper" T-cells) and also on monocytes, tissue macrophages and granulocytes. This antibody does not block Leu3a and OKT4 binding, and blocks HIV-1 infection in cell to cell system. Very strong flow cytometry staining, brighter than Leu3a, OKT4 and other.

Product Info

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| Amount : | 100 Tests |
| Purification : | Purified antibody is conjugated with fluorescein isothiocyanate (FITC) under optimum conditions and unconjugated antibody and free fluorochrome are removed by size-exclusion chromatography. |
| Content : | Concentration: 0.5 mg/ml Storage Buffer: Phosphate buffered saline (PBS), pH 7.4, 15 mM sodium azide |
| Storage condition : | Store at 2-8°C. Protect from prolonged exposure to light. Do not freeze. |

Application Note

Flow cytometry: The reagent is designed for analysis of human blood cells using 4 μl reagent / 100 μl of whole blood or 10^6 cells in a suspension. The content of a vial (0.4 ml) is sufficient for 100 tests.