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30-2779: Anti-Hu CD4 Purified

Clonality :	Monoclonal
Clone Name :	MEM-115
Application :	FACS, IP
Reactivity :	Human
Gene :	CD4
Gene ID :	920
Uniprot ID :	P01730
Format :	Purified
Alternative Name :	CD4 molecule T4/Leu-3, L3T4
Immunogen Information :	Human thymocytes and T 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 diferentiation, 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 antibody MEM-115 recognizes an extracellular epitope in the D1 domain of CD4 antigen, a 55 kDa transmebrane glycoprotein expressed on a subset of T lymphocytes (“helper“ T cells) and also on monocytes, tissue macrophages and granulocytes. It is negative in Western blotting even with non-reduced samples of cell lysates.

Product Info

Amount :	0.1 mg
Purification :	Purified by protein-A affinity chromatography.
Content :	Concentration: 1 mg/ml Storage Buffer: Phosphate buffered saline (PBS), pH 7.4, 15 mM sodium azide
Storage condition :	Store at 2-8°C. Do not freeze.

Application Note

Immunoprecipitation: Excellent.
Flow cytometry: Recommended dilution: 3 ÃÂµg/ml. Although it has not been tested rigorously, following data suggest that the antibody MEM-115 is a low-affinity antibody: its binding to T cells increases at elevated temperature, monovalent Fab fragments essentially do not bind to T cells.

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