

### 30-2779: Anti-Hu CD4 Purified

<b>Clonality :</b>	Monoclonal
<b>Clone Name :</b>	MEM-115
<b>Application :</b>	FACS, IP
<b>Reactivity :</b>	Human
<b>Gene :</b>	CD4
<b>Gene ID :</b>	920
<b>Uniprot ID :</b>	P01730
<b>Format :</b>	Purified
<b>Alternative Name :</b>	CD4 molecule T4/Leu-3, L3T4
<b>Immunogen Information :</b>	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: p56Lck. CD4 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 antibody MEM-115 recognizes an extracellular epitope in the D1 domain 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. It is negative in Western blotting even with non-reduced samples of cell lysates.

#### Product Info

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

#### Application Note

Immunoprecipitation: Excellent.

Flow cytometry: Recommended dilution: 3  $\mu$ g/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.