



11-463-C025

Monoclonal Antibody to CD4 Purified Antibody (0.025 mg)

Clone:	MEM-16
Isotype:	Mouse IgM
Specificity:	The antibody MEM-16 recognizes an epitope EF loop of 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. HLDA V; WS Code T T-CD04.10 HLDA VI; WS Code T 6T-013
Regulatory Status:	RUO
Immunogen:	HPB cell line (human peripheral blood leukemia T-cells)
Species Reactivity:	Human
Negative Species:	Porcine
Application:	Flow Cytometry Recommended dilution: 10 µg/ml Positive control: Peripheral blood lymphocytes Immunoprecipitation
Purity:	> 95% (by SDS-PAGE)
Purification:	Purified by precipitation and chromatography
Concentration:	1 mg/ml
Storage Buffer:	Tris buffered saline (TBS) with 15 mM sodium azide, approx. pH 8.0
Storage / Stability:	Store at 2-8°C. Do not freeze. Do not use after expiration date stamped on vial label.
Expiration:	See vial label
Lot Number:	See vial label

For laboratory research only, not for drug, diagnostic or other use.

**Antibodies****Background:**

CD4 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).

References:

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