

30-1235: Anti-CD4 Monoclonal Antibody (Clone:MEM-241)

Clonality :	Monoclonal
Clone Name :	MEM-241
Application :	FACS
Reactivity :	Human
Gene :	CD4
Gene ID :	920
Uniprot ID :	P01730
Format :	Purified
Alternative Name :	CD4
Isotype :	Mouse IgG1
Immunogen Information :	2 N-terminal domains of human CD4 fused to human IgG1 Fc

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).

Product Info

Amount :	0.1 mg
Purification :	Purified by protein-A affinity chromatography
Storage condition :	Store at 2-8°C. Do not freeze.

Application Note

Flow cytometry: Recommended dilution: 1-5 µg/ml; positive control: peripheral blood, HPB T cell line. This antibody is excellent antibody for FC application.
Western blotting: Recommended dilution: 1-2 µg/ml; positive control: peripheral blood, HPB T cell line, non-reducing conditions.

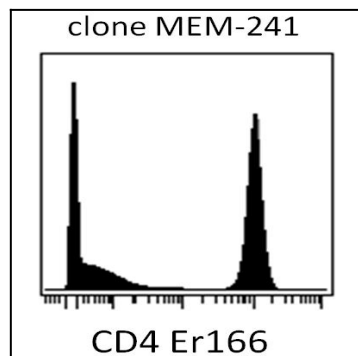


Figure 1: Surface staining (mass cytometry) of PBMC after Ficoll-Paque separation with anti-human CD4 (MEM-241) Er166. Gated on singlets.