anti-human CD4 PerCP-conjugated

PerCP-conjugated monoclonal antibody MEM-241 to human CD4

Cat-No: **21270045**

**Clone:** MEM-241

**Specificity:** The antibody MEM-241 recognizes CD4 antigen, a 55 kDa trans-membrane glycoprotein expressed on a subset of T-cells (helper T-cells) and also on monocytes, tissue macrophages and granulocytes. HCDM (former HLDA VIII) Meeting, May 2006, Québec, Canada; WS Code M241

**Isotype subclass:** Mouse IgG1

**Form:** The purified antibody is conjugated with Peridin Chlorophyll (PerCP) under optimum conditions. The reagent is adjusted for direct use. No reconstitution is necessary.

**Physical state:** Liquid

**Buffer/Additives/Preservative:** PBS containing 1% BSA and 0.09% sodium azide (pH 7.2)

**Expiration date:** The reagent is stable until the expiry date stated on the vial label.

**Storage conditions:** Store at 4 °C. Avoid prolonged exposure to light.

**Application:** Flow Cytometry

**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. 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:**

**Warning:** Sodium azide is harmful if swallowed (R22). Keep out of reach of children (S2). Keep away from food, drink and animal feeding stuff (S13). Wear suitable protective clothing (S36). If swallowed, seek medical advice immediately and show this container or label (S46). Contact with acids liberates very toxic gas (R32). Azide compounds should be flushed with large volumes of water during disposal to avoid deposits in lead or copper plumbing where explosive conditions can develop.

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