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### Zuschläge

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### SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

[mail@szabo-scandic.com](mailto:mail@szabo-scandic.com)

[www.szabo-scandic.com](http://www.szabo-scandic.com)

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## Purified Mouse Anti-CD4/T4 Monoclonal Antibody

**CLX250AP**

**Lot:**

**Size:** 0.1 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

**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 from ascites by precipitation methods and size-exclusion chromatography.

**Concentration:** 1 mg/ml

**Storage Buffer:** Phosphate buffered saline (PBS) with 15 mM sodium azide, approx. pH 7.4

**Storage / Stability:** Store at 2-8°C. Do not use after expiration date stamped on vial label. For long-term storage aliquot and store at -20°C. Avoid freeze/thaw cycles.

Continued Overleaf...

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4410 Paletta Court, Burlington, ON L7L 5R2 ph: (289) 288-0001, fax: (289) 288-0020  
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**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:**

\*Millan J, Cerny J, Horejsi V, Alonso MA: CD4 segregates into specific detergent-resistant T-cell membrane microdomains. *Tissue Antigens*. 1999 Jan;53(1):33-40.

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**Laboratory Reagent For Research Use Only**

BA 05/09/14