**Datasheet for ABIN94090**  
**anti-CD4 antibody (N-Term) (FITC)**

<table>
<thead>
<tr>
<th>Overview</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Quantity:</td>
<td>100 tests</td>
</tr>
<tr>
<td>Target:</td>
<td>CD4</td>
</tr>
<tr>
<td>Binding Specificity:</td>
<td>N-Term</td>
</tr>
<tr>
<td>Reactivity:</td>
<td>Human</td>
</tr>
<tr>
<td>Host:</td>
<td>Mouse</td>
</tr>
<tr>
<td>Clonality:</td>
<td>Monoclonal</td>
</tr>
<tr>
<td>Conjugate:</td>
<td>This CD4 antibody is conjugated to FITC</td>
</tr>
<tr>
<td>Application:</td>
<td>Flow Cytometry (FACS), Western Blotting (WB), Microcytotoxicity Assay (MCA)</td>
</tr>
</tbody>
</table>

**Product Details**

| Immunogen: | 2 N-terminal domains of human CD4 fused to human IgG1 Fc |
| Clone: | MEM-241 |
| Isotype: | IgG1 |
| Specificity: | The antibody MEM-241 recognizes 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. |

**HCDM (former HLDA VIII) Meeting, May 2006, Québec, Canada, WS Code M241**

| Cross-Reactivity (Details): | Human, Other not tested |

**Target Details**

| Target: | CD4 |
### Target Details

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<thead>
<tr>
<th><strong>Alternative Name:</strong></th>
<th>CD4 (CD4 Products)</th>
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**Background:**
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).

### Pathways
- TCR Signaling
- Maintenance of Protein Location
- CXCR4-mediated Signaling Events

### Application Details

<table>
<thead>
<tr>
<th><strong>Application Notes:</strong></th>
<th>The reagent is designed for Flow Cytometry analysis of human blood cells using 20 μl reagent / 100 μl of whole blood or 106 cells in a suspension. The content of a vial (2 ml) is sufficient for 100 tests.</th>
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<tr>
<th><strong>Comment:</strong></th>
<th>The purified antibody is conjugated with Fluorescein isothiocyanate (FITC) under optimum conditions. The reagent is free of unconjugated FITC and adjusted for direct use. No reconstitution is necessary.</th>
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<table>
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<tr>
<th><strong>Restrictions:</strong></th>
<th>For Research Use only</th>
</tr>
</thead>
</table>

### Handling

<table>
<thead>
<tr>
<th><strong>Reconstitution:</strong></th>
<th>No reconstitution is necessary.</th>
</tr>
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</table>

<table>
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<tr>
<th><strong>Buffer:</strong></th>
<th>The reagent is provided in stabilizing phosphate buffered saline (PBS) solution containing 15 mM sodium azide.</th>
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<tr>
<th><strong>Preservative:</strong></th>
<th>Sodium azide</th>
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Handling

Precaution of Use: This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.

Handling Advice: Do not freeze. Avoid prolonged exposure to light.

Storage: 4 °C

Storage Comment: Store in the dark at 2-8°C. Do not freeze. Avoid prolonged exposure to light. Do not use after expiration date stamped on vial label.

Publications


There are more publications referencing this product on: Product page
**Flow Cytometry**

**Image 1.** Flow cytometry surface staining pattern of human peripheral whole blood stained using anti-human CD4 (MEM-241) FITC (20 μL reagent / 100 μL of peripheral whole blood).

**Flow Cytometry**

**Image 2.** Surface staining of human peripheral blood cells with anti-human CD4 (MEM-241) FITC.

**Flow Cytometry**

**Image 3.** Separation of human CD4 positive lymphocytes (red-filled) from human CD4 negative neutrophil granulocytes (black-dashed) in flow cytometry analysis (surface staining) of human peripheral whole blood stained using anti-human CD4 (MEM-241) FITC (20 μL reagent / 100 μL of peripheral whole blood).