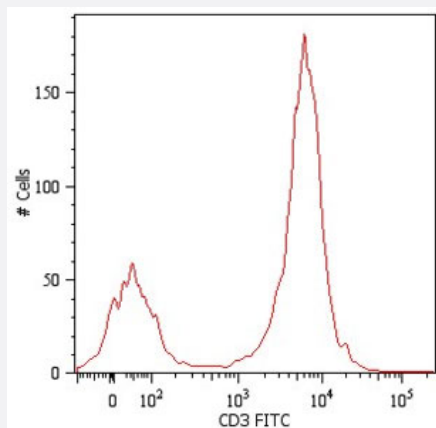


# CD3 monoclonal antibody, clone MEM-57 (FITC)

Catalog # MAB4616      Size 100 Reactions

## Applications



### Flow Cytometry

Surface staining of human peripheral blood cells with CD3 monoclonal antibody, clone MEM-57 (FITC) (Cat # MAB4616). Cells in the lymphocyte gate were used for analysis.

## Specification

|                            |   |
|----------------------------|---|
| <b>Product Description</b> | Mouse monoclonal antibody raised against native CD3.  |
| <b>Immunogen</b>           | Native purified CD3 from human thymocytes and T lymphocytes.  |
| <b>Host</b>                | Mouse   |
| <b>Reactivity</b>          | Human   |
| <b>Specificity</b>         | This antibody reacts with gamma-epsilon and delta-epsilon dimers of human CD3 complex, a part of a bigger multisubunit T cell receptor complex (CD3/TCR) expressed on peripheral blood T lymphocytes and mature thymocytes. |
| <b>Form</b>                | Liquid  |
| <b>Conjugation</b>         | FITC  |
| <b>Isotype</b>             | IgG2a   |
| <b>Recommend Usage</b>     | Flow Cytometry (20 ul in human blood cells 100 ul in whole blood or 10 <sup>6</sup> cells in a suspension)<br>The optimal working dilution should be determined by the end user.  |

|                            |   |
|----------------------------|---|
| <b>Storage Buffer</b>      | In PBS (0.2% BSA, 0.09% sodium azide)   |
| <b>Storage Instruction</b> | Store in the dark at 4°C. Do not freeze.<br>Avoid prolonged exposure to light.<br>Aliquot to avoid repeated freezing and thawing. |
| <b>Note</b>                | This product contains sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.            |

## Applications

- Flow Cytometry

Surface staining of human peripheral blood cells with CD3 monoclonal antibody, clone MEM-57 (FITC) (Cat # MAB4616). Cells in the lymphocyte gate were used for analysis.

## Gene Info — CD3D

|                         |   |
|-------------------------|---|
| <b>Entrez GeneID</b>    | <a href="#">915</a>                           |
| <b>Gene Name</b>        | CD3D  |
| <b>Gene Alias</b>       | CD3-DELTA, T3D                                |
| <b>Gene Description</b> | CD3d molecule, delta (CD3-TCR complex)        |
| <b>Omim ID</b>          | <a href="#">186790</a> <a href="#">600802</a> |
| <b>Gene Ontology</b>    | <a href="#">Hyperlink</a>                     |

|                           |   |
|---------------------------|---|
| <b>Gene Summary</b>       | The protein encoded by this gene is part of the T-cell receptor/CD3 complex (TCR/CD3 complex) and is involved in T-cell development and signal transduction. The encoded membrane protein represents the delta subunit of the CD3 complex, and along with four other CD3 subunits, binds either TCR alpha/beta or TCR gamma/delta to form the TCR/CD3 complex on the surface of T-cells. Defects in this gene are a cause of severe combined immunodeficiency autosomal recessive T-cell-negative/B-cell-positive/NK-cell-positive (SCIDBNK). Two transcript variants encoding different isoforms have been found for this gene. Other variants may also exist, but the full-length nature of their transcripts has yet to be defined. [provided by RefSeq] |
| <b>Other Designations</b> | CD3D antigen, delta polypeptide CD3d antigen, delta polypeptide (TIT3 complex) T-cell receptor T3 delta chain T-cell surface glycoprotein CD3 delta chain   |

## Gene Info — CD3E

|                      |                     |
|----------------------|---------------------|
| <b>Entrez GeneID</b> | <a href="#">916</a> |
|----------------------|---------------------|

|                    |   |
|--------------------|---|
| Gene Name          | CD3E  |
| Gene Alias         | FLJ18683, T3E, TCRE   |
| Gene Description   | CD3e molecule, epsilon (CD3-TCR complex)  |
| Omim ID            | <a href="#">186830</a>  |
| Gene Ontology      | <a href="#">Hyperlink</a>   |
| Gene Summary       | The protein encoded by this gene is the CD3-epsilon polypeptide, which together with CD3-gamma, -delta and -zeta, and the T-cell receptor alpha/beta and gamma/delta heterodimers, forms the T-cell receptor-CD3 complex. This complex plays an important role in coupling antigen recognition to several intracellular signal-transduction pathways. The genes encoding the epsilon, gamma and delta polypeptides are located in the same cluster on chromosome 11. The epsilon polypeptide plays an essential role in T-cell development. Defects in this gene cause immunodeficiency. This gene has also been linked to a susceptibility to type I diabetes in women. [provided by RefSeq] |
| Other Designations | CD3-epsilon CD3E antigen, epsilon polypeptide CD3e antigen, epsilon polypeptide (TiT3 complex) T-cell antigen receptor complex, epsilon subunit of T3 T-cell surface antigen T3/Leu-4 epsilon chain T-cell surface glycoprotein CD3 epsilon chain   |

## Gene Info — CD3G

|                    |   |
|--------------------|---|
| Entrez GeneID      | <a href="#">917</a>   |
| Gene Name          | CD3G  |
| Gene Alias         | CD3-GAMMA, FLJ17620, FLJ17664, FLJ79544, FLJ94613, MGC138597, T3G   |
| Gene Description   | CD3g molecule, gamma (CD3-TCR complex)  |
| Omim ID            | <a href="#">186740</a>  |
| Gene Ontology      | <a href="#">Hyperlink</a>   |
| Gene Summary       | The protein encoded by this gene is the CD3-gamma polypeptide, which together with CD3-epsilon, -delta and -zeta, and the T-cell receptor alpha/beta and gamma/delta heterodimers, forms the T-cell receptor-CD3 complex. This complex plays an important role in coupling antigen recognition to several intracellular signal-transduction pathways. The genes encoding the epsilon, gamma and delta polypeptides are located in the same cluster on chromosome 11. Defects in this gene are associated with T cell immunodeficiency. [provided by RefSeq] |
| Other Designations | CD3G antigen, gamma polypeptide CD3g antigen, gamma polypeptide (TiT3 complex) T-cell antigen receptor complex, gamma subunit of T3 T-cell receptor T3 gamma chain T-cell surface glycoprotein CD3 gamma chain  |

## Publication Reference

- [T-cell antigen-receptor stoichiometry: pre-clustering for sensitivity.](#)

Alarcon B, Swamy M, van Santen HM, Schamel WW.

EMBO Reports 2006 May; 7(5):490.

- [Therapeutic in vivo use of the A1-CD3 monoclonal antibody.](#)

I Hilgert , F Franěk, I Stefanová, J Kaslík, J Jirka, H Kristofová, P Rossmann, J Soucek, V Horejsi.

Transplantation 1993 Feb; 55(2):435.

- [Monoclonal antibodies against human leucocyte antigens. II. Antibodies against CD45 \(T200\), CD3 \(T3\), CD43, CD10 \(CALLA\), transferrin receptor \(T9\), a novel broadly expressed 18-kDa antigen \(MEM-43\) and a novel antigen of restricted expression \(MEM-74\).](#)

Horejsí V, Angelisová P, Bazil V, Kristofová H, Stoyanov S, Stefanová I, Hausner P, Vosecký M, Hilgert I.

Folia Biol (Praha) 1988 Jan; 34(1):23.

## Pathway

- [Hematopoietic cell lineage](#)
- [Hematopoietic cell lineage](#)
- [Hematopoietic cell lineage](#)
- [Primary immunodeficiency](#)
- [Primary immunodeficiency](#)
- [T cell receptor signaling pathway](#)
- [T cell receptor signaling pathway](#)
- [T cell receptor signaling pathway](#)

## Disease

- [Arthritis](#)
- [Asthma](#)

- [Cardiovascular Diseases](#)
- [Celiac Disease](#)
- [Celiac Disease](#)
- [Celiac Disease](#)
- [Depressive Disorder](#)
- [Diabetes Mellitus](#)
- [Edema](#)
- [Genetic Predisposition to Disease](#)
- [Genetic Predisposition to Disease](#)
- [Genetic Predisposition to Disease](#)
- [Inflammation](#)