CD3 monoclonal antibody, clone UCHT1 (PE)

Catalog # MAB4402 Size 100 Reactions

Specification

Product Description	Mouse monoclonal antibody raised against native CD3.
Immunogen	Native purified CD3 from human thymocytes followed by Sezary T cells.
Host	Mouse
Reactivity	Human
Specificity	This antibody recognizes the CD3 antigen of the TCR/CD3 complex on mature human T cells. The antibody reacts with the epsilon chain of the CD3 complex.
Form	Liquid
Conjugation	PE
Isotype	IgG1
Recommend Usage	Flow Cytometry (20 ul in human blood cells 100 ul in whole blood or 10^6 cells in a suspension) The optimal working dilution should be determined by the end user.
Storage Buffer	In PBS (0.2% BSA, 0.09% sodium azide)
Storage Instruction	Store in the dark at 4°C. Do not freeze. Avoid prolonged exposure to light. Aliquot to avoid repeated freezing and thawing.
Note	This product contains sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.

Applications

- Immunohistochemistry (Frozen sections)
- Flow Cytometry

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- Radioimmunoassay
- Immunoprecipitation

Gene Info — CD3D

Entrez GeneID	915
Gene Name	CD3D
Gene Alias	CD3-DELTA, T3D
Gene Description	CD3d molecule, delta (CD3-TCR complex)
Omim ID	186790 600802
Gene Ontology	Hyperlink
Gene Summary	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 re presents the delta subunit of the CD3 complex, and along with four other CD3 subunits, binds eith er 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-c ell-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 natures of their transcripts has yet to be defined. [provided by RefSeq
Other Designations	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

Entrez GeneID	916
Gene Name	CD3E
Gene Alias	FLJ18683, T3E, TCRE
Gene Description	CD3e molecule, epsilon (CD3-TCR complex)
Omim ID	186830
Gene Ontology	Hyperlink

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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	917
Gene Name	CD3G
Gene Alias	CD3-GAMMA, FLJ17620, FLJ17664, FLJ79544, FLJ94613, MGC138597, T3G
Gene Description	CD3g molecule, gamma (CD3-TCR complex)
Omim ID	186740
Gene Ontology	Hyperlink
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

Gene Info — CD247

Entrez GeneID	919
Gene Name	CD247
Gene Alias	CD3-ZETA, CD3H, CD3Q, CD3Z, T3Z, TCRZ
Gene Description	CD247 molecule

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Omim ID	186780 610163
Gene Ontology	Hyperlink
Gene Summary	The protein encoded by this gene is T-cell receptor zeta, which together with T-cell receptor alpha/beta and gamma/delta heterodimers, and with CD3-gamma, -delta and -epsilon, forms the T-cell receptor-CD3 complex. The zeta chain plays an important role in coupling antigen recognition to several intracellular signal-transduction pathways. Low expression of the antigen results in impaired immune response. Two alternatively spliced transcript variants encoding distinct isoforms have been found for this gene. [provided by RefSeq
Other Designations	CD247 antigen, zeta subunit|CD3Z antigen, zeta polypeptide (TiT3 complex)|OTTHUMP00000032544|T-cell antigen receptor complex, zeta subunit of CD3|T-cell receptor T3 zeta chain|T-cell receptor zeta chain|T-cell surface glycoprotein CD3 zeta chain

Publication Reference

- Different composition of the human and the mouse gammadelta T cell receptor explains different phenotypes of CD3gamma and CD3delta immunodeficiencies.

  Siegers GM, Swamy M, Fernandez-Malave E, Minguet S, Rathmann S, Guardo AC, Perez-Flores V, Regueiro JR, Alarcon B, Fisch P, Schamel WW.

  The Journal of Experimental Medicine 2007 Oct; 204(11):2537.

- Gamma/delta T cell clones and natural killer cell clones mediate distinct patterns of non-major histocompatibility complex-restricted cytolysis.

  Fisch P, Malkovsky M, Braakman E, Sturm E, Bolhuis RL, Prieve A, Sosman JA, Lam VA, Sondel PM.

  The Journal of Experimental Medicine 1990 May; 171(5):1567.

- Monoclonal antibodies against human T lymphocytes label Purkinje neurones of many species.

  Garson JA, Beverley PC, Coakham HB, Harper EI.

  Nature 1982 Jul; 298(5872):375.

  Application: Flow Cyt, Human, Mouse, Mammalian cells

Pathway

- Hematopoietic cell lineage
- Hematopoietic cell lineage
- Hematopoietic cell lineage
- Natural killer cell mediated cytotoxicity

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- Primary immunodeficiency
- Primary immunodeficiency
- T cell receptor signaling pathway
- T cell receptor signaling pathway
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Disease

- Arthritis
- 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
- Genetic Predisposition to Disease
- Hypertension
- Inflammation
- Lupus Erythematosus
- Osteoporosis

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- Scleroderma

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