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**Publications** 



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Quantity:	100 tests
Target:	CD5
Reactivity:	Human
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This CD5 antibody is conjugated to FITC
Application:	Flow Cytometry (FACS)

# **Product Details**

Immunogen:	Human acute lymphoblastic leukemia (ALL) T cells
Clone:	L17F12
Isotype:	IgG2a kappa
Specificity:	The mouse monoclonal antibody L17F12 reacts with an extracellular epitope of CD5, a 67 kDa single-chain transmembrane glycoprotein expressed on mature T lymphocytes, most of thymocytes and B lymphocytes subset (B-1a lymphocytes).
Cross-Reactivity (Details):	Human
Purification:	Purified antibody is conjugated with fluorescein isothiocyanate (FITC) under optimum conditions and unconjugated antibody and free fluorochrome are removed by size-exclusion chromatography.

# **Target Details**

Target:	CD5
Alternative Name:	CD5 (CD5 Products)
Background:	CD5 Molecule,CD5 antigen (T1, 67 kDa) is a human cell surface T-lymphocyte single-chain transmembrane glycoprotein. CD5 is expressed on all mature T-lymphocytes, most of thymocytes, subset of B-lymphocytes and on many T-cell leukemias and lymphomas. It is a type I membrane glycoprotein whose extracellular region contains three scavenger receptor cysteine-rich (SRCR) domains. The CD5 is a signal transducing molecule whose cytoplasmic tail is devoid of any intrinsic catalytic activity. CD5 modulates signaling through the antigen-specific receptor complex (TCR and BCR). CD5 crosslinking induces extracellular Ca++ mobilization, tyrosine phosphorylation of intracellular proteins and DAG production. Preliminary evidence shows protein associations with ZAP-70, p56lck, p59fyn, PC-PLC, etc. CD5 may serve as a dual receptor, giving either stimulatory or inhibitory signals depending both on the cell type and development stage. In thymocytes and B1a cells it seems to provide inhibitory signals, in peripheral mature T lymhocytes it acts as a costimulatory signal receptor. CD5 is the phenotypic marker of a B cell subpopulation involved in the production of autoreactive antibodies. Disease relevance: CD5 is a phenotypic marker for some B cell lymphoproliferative disorders (B-CLL, Hairy cell leukemia, etc.). The CD5+ popuation is expanded in some autoimmune disorders (rheumatoid arthritis, etc.). Herpes virus infections induce loss of CD5 expression in the expanded CD8+ human T cells.,T1, LEU1
Gene ID:	921
UniProt:	P06127
Application Details	
Application Notes:	Flow cytometry: The reagent is designed for analysis of human blood cells using 4 $\mu$ L reagent / 100 $\mu$ L of whole blood or 10 <sup>6</sup> cells in a suspension. The content of a vial (0.4 ml) is sufficient fo 100 tests.
Comment:	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.
Restrictions:	For Research Use only
Handling	
Reconstitution:	No reconstitution is necessary.

## Handling

Buffer:	Stabilizing phosphate buffered saline (PBS), pH 7.4, 15 mM sodium azide
Preservative:	Sodium azide
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.
Handling Advice: Storage:	

#### **Publications**

#### Product cited in:

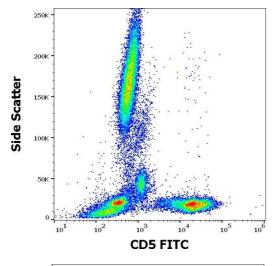
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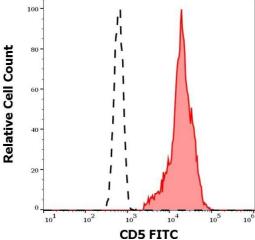
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# **Flow Cytometry**

**Image 1.** Flow cytometry surface staining pattern of human peripheral whole blood stained using anti-human CD5 (L17F12) FITC antibody (4  $\mu$ L reagent / 100  $\mu$ L of peripheral whole blood).

## **Flow Cytometry**

**Image 2.** Separation of human CD5 positive lymphocytes (red-filled) from neutrophil granulocytes (black-dashed) in flow cytometry analysis (surface staining) of human peripheral whole blood stained using anti-human CD5 (L17F12) FITC antibody (4  $\mu$ L reagent / 100  $\mu$ L of peripheral whole blood).