

Datasheet for ABIN94161

**anti-CD5 antibody**

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## Overview

Quantity:	0.1 mg
Target:	CD5
Reactivity:	Human
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This CD5 antibody is un-conjugated
Application:	Flow Cytometry (FACS), Western Blotting (WB), Immunoprecipitation (IP), ELISA, Immunohistochemistry (Paraffin-embedded Sections) (IHC (p))

## Product Details

Immunogen:	Crude thymus membrane fraction.
Clone:	MEM-32
Isotype:	IgG1
Specificity:	The antibody MEM-32 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 by protein-A affinity chromatography.
Purity:	> 95 % (by SDS-PAGE)

## Target Details

Target:	CD5
Alternative Name:	CD5 ( <a href="#">CD5 Products</a> )
Background:	<p>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<sup>++</sup> 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 lymphocytes 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<sup>+</sup> population is expanded in some autoimmune disorders (rheumatoid arthritis, etc.). Herpes virus infections induce loss of CD5 expression in the expanded CD8<sup>+</sup> human T cells.,T1, LEU1</p>
Gene ID:	921
UniProt:	<a href="#">P06127</a>

## Application Details

Application Notes:	<p>ELISA: The antibody MEM-32 can be used in the Sandwich ELISA as the capture antibody in pair with the detection antibody CRIS1.</p> <p>Immunohistochemistry (paraffin sections): Recommended dilution: 20 µg/mL, positive tissue: spleen.</p> <p>Flow cytometry: Recommended dilution: 2 µg/mL.</p> <p>Western blotting: Laurylmaltoside lysing buffer, non-reducing conditions, recommended dilution: 1-2 µg/mL.</p>
Restrictions:	For Research Use only

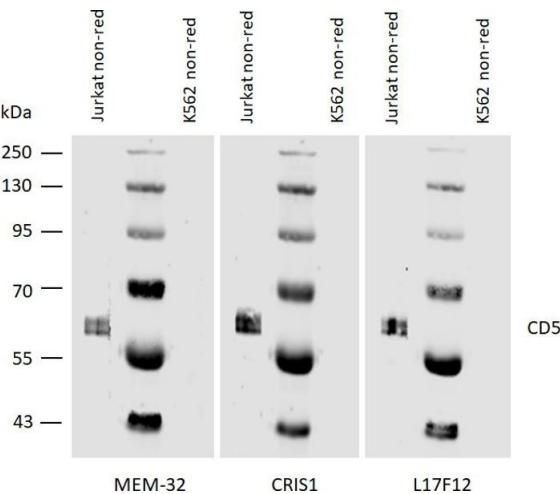
Handling

Concentration:	1 mg/mL
Buffer:	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:	<b>Do not freeze.</b>
Storage:	4 °C
Storage Comment:	Store at 2-8°C. Do not freeze.

Publications

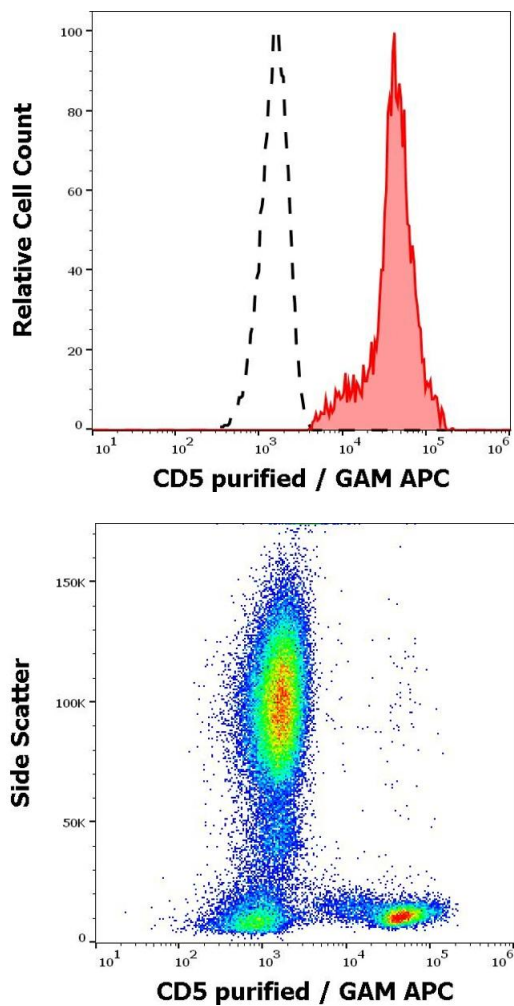
Product cited in:	Hrdinka, Dráber, Stepánek, Ormsby, Otáhal, Angelisová, Brdicka, Paces, Horejsí, Drbal: "PRR7 is a transmembrane adaptor protein expressed in activated T cells involved in regulation of T cell receptor signaling and apoptosis." in: <b>The Journal of biological chemistry</b> , Vol. 286, Issue 22, pp. 19617-29, (2011) ( <a href="#">PubMed</a> ).
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Images



**Western Blotting**

**Image 1.** Western blotting analysis of human CD5 using mouse monoclonal antibodies MEM-32, CRIS1, and L17F12 on laurylmaltoside lysates of Jurkat cells and of K562 cells (negative control) under non-reducing conditions. Nitrocellulose membrane was probed with 2 µg/mL of mouse anti-CD5 monoclonal antibody followed by IRDye800-conjugated anti-mouse secondary antibody. CD5 was detected at approximately 62 kDa.



### 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 (MEM-32) purified antibody (concentration in sample  $3 \mu\text{g/mL}$ , GAM APC).

### Flow Cytometry

**Image 3.** Flow cytometry surface staining pattern of human peripheral whole blood stained using anti-human CD5 (MEM-32) purified antibody (concentration in sample  $3 \mu\text{g/mL}$ , GAM APC).