Datasheet for ABIN125749

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 (Frozen Sections) (IHC (fro))

Product Details

Immunogen:	stimulated human leukocytes
Clone:	CRIS1
Isotype:	IgG2a
Specificity:	The mouse monoclonal antibody CRIS1 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, Other species Not tested
Purification:	Purified by protein-A affinity chromatography.
Purity:	> 95 % (by SDS-PAGE)

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

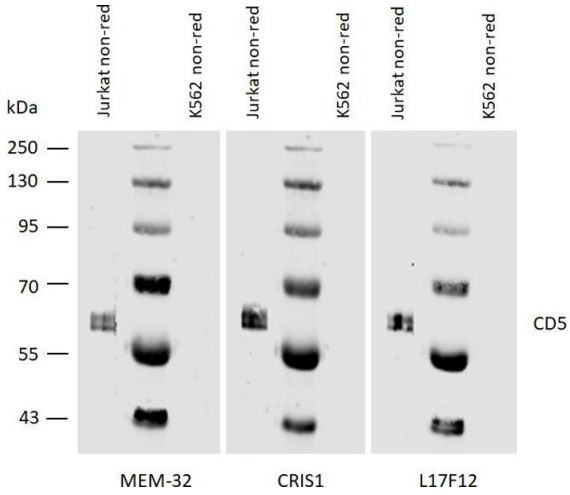
Application Notes:	ELISA: The antibody CRIS1 can be used in the sandwich ELISA as the detection antibody in pair with the capture antibody MEM-32 Flow cytometry: Recommended dilution: 1 µg/mL, positive control: peripheral blood lymphocytes (PBL), Jurkat human leukemia T-cell line, HPB human leukemia T-cell line, MOLT-4 human leukemia T-cell line. Western blotting: Laurylmaltoside lysing buffer, non-reducing conditions, recommended dilution: 1-2 µg/mL.
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:	**Do not freeze.**
Storage:	4 °C
Storage Comment:	Store at 2-8°C. Do not freeze.

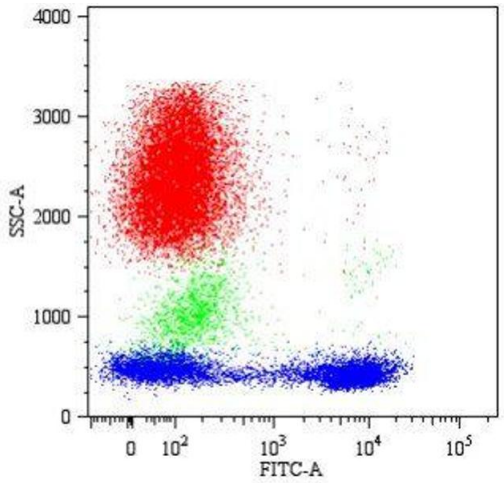
Publications

Product cited in:	Guarné, Bravo, Calvo, Lozano, Vives, Fita: "Conformation of the hypervariable region L3 without the key proline residue." in: **Protein science : a publication of the Protein Society**, Vol. 5, Issue 1, pp. 167-9, (1996) (PubMed). Alberola-Ila, Places, Cantrell, Vives, Lozano: "Intracellular events involved in CD5-induced human T cell activation and proliferation." in: **Journal of immunology (Baltimore, Md. : 1950)**, Vol. 148, Issue 5, pp. 1287-93, (1992) (PubMed). Arrizabalaga, Mirapeix, Darnell, Torras, Revert: "Cellular immunity analysis using monoclonal antibodies in human glomerulonephritis." in: **Nephron**, Vol. 53, Issue 1, pp. 41-9, (1989) (PubMed).



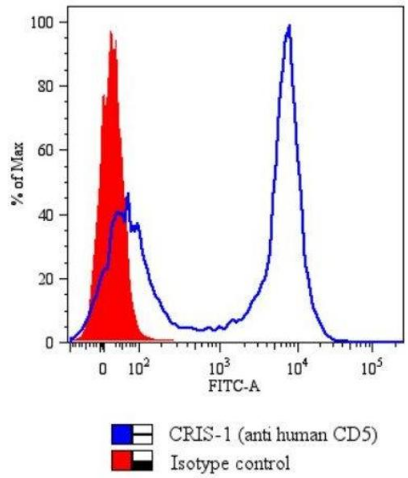
Western Blotting

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. Dot plot Fig. 1. Flow Cytometry analysis of human Peripheral Blood Lymphocytes (PBL) stained with CRIS1 antibody (dilution of purified antibody 1 µg/ml); Fig. 1a Histogram - gated on lymphocytes, overlay with isotypic control (mouse IgG2a); Fig. 1b Dot plot.



Flow Cytometry

Image 3. Dot plot Fig. 1. Flow Cytometry analysis of human Peripheral Blood Lymphocytes (PBL) stained with CRIS1 antibody (dilution of purified antibody 1 µg/ml); Fig. 1a Histogram - gated on lymphocytes, overlay with isotypic control (mouse IgG2a); Fig. 1b Dot plot.