

30-1336: Anti-CD5 Monoclonal Antibody (Clone:CRIS1)

Clonality :	Monoclonal
Clone Name :	CRIS1
Application :	ELISA,FACS,WB
Reactivity :	Human
Gene :	CD5
Gene ID :	921
Uniprot ID :	P06127
Format :	Purified
Alternative Name :	CD5,LEU1
Isotype :	Mouse IgG2a
Immunogen Information :	stimulated human leukocytes

Description

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 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⁺ population is expanded in some autoimmune disorders (Rheumatoid Arthritis, etc.). Herpes virus infections induce loss of CD5 expression in the expanded CD8⁺ human T cells.

Product Info

Amount :	0.1 mg
Purification :	Purified by protein-A affinity chromatography
Storage condition :	Store at 2-8°C. Do not freeze.

Application Note

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.

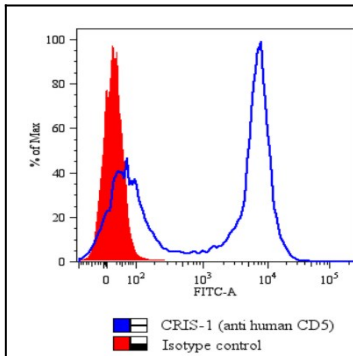


Figure 1: Flow Cytometry analysis of human Peripheral Blood Lymphocytes (PBL) stained with CRIS1 antibody (dilution of purified antibody 1 $\mu\text{g/ml}$); Histogram - gated on lymphocytes, overlay with isotypic control (mouse IgG2a);