

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

|                                |                             |
|--------------------------------|-----------------------------|
| <b>Clonality :</b>             | Monoclonal                  |
| <b>Clone Name :</b>            | CRIS1                       |
| <b>Application :</b>           | ELISA,FACS,WB               |
| <b>Reactivity :</b>            | Human                       |
| <b>Gene :</b>                  | CD5                         |
| <b>Gene ID :</b>               | 921                         |
| <b>Uniprot ID :</b>            | P06127                      |
| <b>Format :</b>                | Purified                    |
| <b>Alternative Name :</b>      | CD5,LEU1                    |
| <b>Isotype :</b>               | Mouse IgG2a                 |
| <b>Immunogen Information :</b> | 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<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 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.

### Product Info

|                            |   |
|----------------------------|---|
| <b>Amount :</b>            | 0.1 mg  |
| <b>Purification :</b>      | Purified by protein-A affinity chromatography |
| <b>Storage condition :</b> | 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.

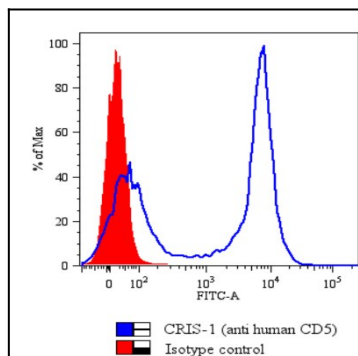


Figure 1: Flow Cytometry analysis of human Peripheral Blood Lymphocytes (PBL) stained with CRIS1 antibody (dilution of purified antibody 1  $\mu\text{g/ml}$ ); Histogram - gated on lymphocytes, overlay with isotypic control (mouse IgG2a);