

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

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

Description

Specificity: The mouse monoclonal antibody CRIS1 reacts with an extracellular epitope of CD5, a 67kDa single-chain transmembrane glycoprotein expressed on mature T lymphocytes, most of thymocytes and B lymphocytes subset (B-1a lymphocytes).

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 antibody is conjugated with biotin LC-NHS ester under optimum conditions and unconjugated antibody and free biotin are removed by size-exclusion chromatography.
Content :	Concentration: 1 mg/ml Content: Phosphate buffered saline (PBS), pH 7.4, 15 mM sodium azide
Storage condition :	Store at 2-8°C. Do not freeze.

Application Note

Flow cytometry: Recommended dilution: 0.5-4 µg/ml.

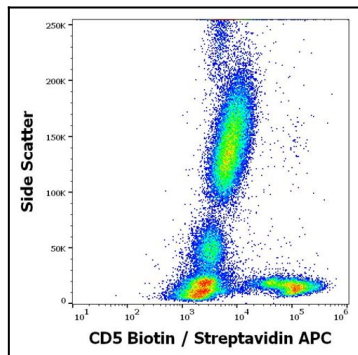


Figure 1: Flow cytometry surface staining pattern of human peripheral whole blood stained using anti-human CD5 (CRIS1) Biotin antibody (concentration in sample 0.33 µg/ml, streptavidin APC).

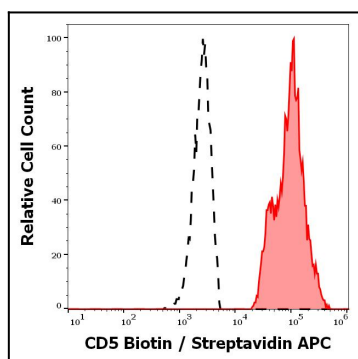


Figure 2: Separation of human CD5 positive lymphocytes (red-filled) from CD5 negative lymphocytes (black-dashed) in flow cytometry analysis (surface staining) of human peripheral whole blood stained using anti-human CD5 (CRIS1) Biotin antibody (concentration in sample 0.33 µg/ml, streptavidin APC).