

Product datasheet for **AM03103FC-N**

CD5 Mouse Monoclonal Antibody [Clone ID: CRIS1]

Product data:

Product Type:	Primary Antibodies
Clone Name:	CRIS1
Applications:	FC
Recommended Dilution:	Flow Cytometry analysis of blood cells using 20 µl reagent / 100 µl of whole blood or 10e6 cells in a suspension. The content of a vial (2 ml) is sufficient for 100 tests.
Reactivity:	Human
Host:	Mouse
Isotype:	IgG2a
Clonality:	Monoclonal
Immunogen:	Stimulated human leukocytes
Specificity:	This antibody reacts with the cell surface glycoprotein CD5, a 67kDa single-chain transmembrane glycoprotein expressed on mature T lymphocytes, most of thymocytes and B lymphocytes subset (B-1a lymphocytes).
Formulation:	Phosphate buffered saline (PBS) containing 15 mM sodium azide and 0.2% (w/v) high-grade protease free Bovine Serum Albumin (BSA) as a stabilizing agent Label: FITC State: Liquid IG fraction Label: Conjugated with Fluorescein isothiocyanate under optimum conditions. The reagent is free of unconjugated and adjusted for direct use
Conjugation:	FITC
Storage:	Store the antibody at 2 - 8 °C. DO NOT FREEZE! Centrifuge vial before opening. This product is photosensitive and should be protected from light.
Stability:	Shelf life: one year from despatch.
Gene Name:	CD5 molecule
Database Link:	Entrez Gene 921 Human P06127



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Background:

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.

Synonyms:

CD5, LEU1