ARG62877
anti-CD5 antibody [CRIS1]

Package: 100 µg
Store at: -20°C

Summary

Product Description	Mouse Monoclonal antibody [CRIS1] recognizes CD5
Tested Reactivity	Hu
Tested Application	ELISA, FACS, IHC-Fr, IP, WB
Specificity	The clone CRIS1 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). HLDA I; WS Code T 29 HLDA III; WS Code T 530
Host	Mouse
Clonality	Monoclonal
Clone	CRIS1
Isotype	IgG2a
Target Name	CD5
Species	Human
Immunogen	stimulated human leukocytes
Conjugation	Un-conjugated
Alternate Names	CD antigen CD5; Lymphocyte antigen T1/Leu-1; LEU1; T-cell surface glycoprotein CD5; T1

Application Instructions

Application table

Application	Dilution
ELISA	Assay-dependent
FACS	1 µg/ml
IHC-Fr	Assay-dependent
IP	Assay-dependent
WB	1 - 2 µg/ml

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 * The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.
Positive Control	FACS: Peripheral Blood Lymphocytes (PBL), Jurkat human leukemia T-cell line, HPB human leukemia T-cell line and MOLT-4 human leukemia T-cell line. WB: Jurkat human leukemia T-cell line and HPB human leukemia T-cell line.

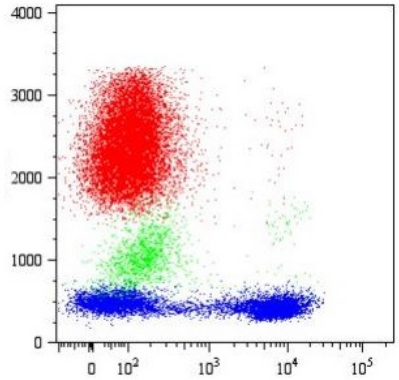
Properties

Form	Liquid
Purification	Purified from hybridoma culture supernatant by protein-A affinity chromatography.
Purity	> 95% (by SDS-PAGE)
Buffer	PBS (pH 7.4) and 15 mM Sodium azide
Preservative	15 mM Sodium azide
Concentration	1 mg/ml
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C or below. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

Database links	GeneID: 921 Human Swiss-port # P06127 Human
Gene Symbol	CD5
Gene Full Name	CD5 molecule
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 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.
Function	May act as a receptor in regulating T-cell proliferation. [UniProt]
Research Area	Developmental Biology antibody; Immune System antibody
Calculated Mw	55 kDa
PTM	Phosphorylated on tyrosine residues by LYN; this creates binding sites for PTPN6/SHP-1.

Images



ARG62877 anti-CD5 antibody [CRIS1] FACS image

Flow Cytometry: Human peripheral blood lymphocytes stained with ARG62877 anti-CD5 antibody [CRIS1] at 1 µg/ml dilution (blue) or Mouse IgG2a isotype control (red).