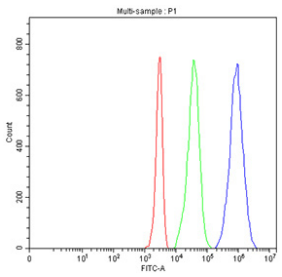
CD5 Polyclonal Antibody / CD5 Antibody for FACS (RQ4443)

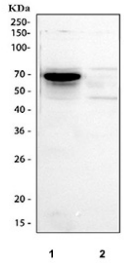
Catalog No.	Formulation	Size
RQ4443	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

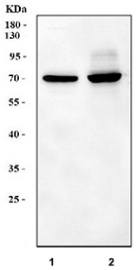
Availability	1-3 business days
Species Reactivity	Human, Mouse, Rat
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity
Buffer	Lyophilized from 1X PBS with 2% Trehalose
UniProt	P06127
Localization	Cell membrane
Applications	Western blot: 0.5-1ug/ml Immunohistochemistry (FFPE): 2-5ug/ml Direct ELISA: 0.1-0.5ug/ml (human recombinant protein) Flow cytometry: 1-3ug/million cells
Limitations	This CD5 Polyclonal Antibody / CD5 Antibody for FACS is available for research use only.



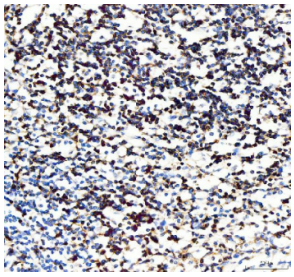
CD5 Polyclonal Antibody FACS Staining of Human Jurkat Cells. Flow cytometry analysis of human Jurkat cells using CD5 Antibody for FACS at 1 ug per million cells following blocking with goat serum. The histogram shows a rightward fluorescence shift in the antibody-stained population (blue) compared with the isotype control (green) and unstained cells (red), demonstrating detection of CD5 in Jurkat cells.



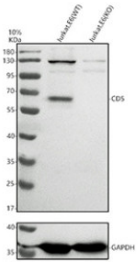
CD5 Polyclonal Antibody WB Analysis of Human Jurkat and HeLa Cells. Western blot analysis of human Jurkat (lane 1) and HeLa (lane 2) whole-cell lysates using CD5 T Cell Marker Antibody at 0.5 ug/ml. A prominent band is detected at approximately 67 kDa in CD5-positive Jurkat cells, while no corresponding band is observed in HeLa cells. The observed migration above the predicted 55 kDa molecular weight is consistent with the known glycosylation of CD5.



CD5 Polyclonal Antibody WB Analysis of Rat and Mouse Spleen. Western blot analysis of rat spleen (lane 1) and mouse spleen (lane 2) tissue lysates using CD5 T Cell Marker Antibody at 0.5 ug/ml. Both samples show a prominent band at approximately 70 kDa, consistent with the expected migration of glycosylated CD5. These results demonstrate antibody reactivity with proteins of the expected molecular weight in rat and mouse spleen lysates.



CD5 Polyclonal Antibody IHC Staining of Human Appendix Tissue. Immunohistochemical analysis of formalin-fixed, paraffin-embedded human appendix tissue using CD5 T Cell Marker Antibody. Brown DAB staining is observed in numerous lymphoid cells, consistent with the expected distribution of CD5-positive lymphocytes. Tissue sections underwent heat-induced epitope retrieval in EDTA buffer (pH 8) for 20 minutes before staining with an HRP-conjugated secondary antibody and DAB substrate.



CD5 Polyclonal Antibody WB Validation Using Human Jurkat WT and CD5 KO Cells. Western blot analysis of human Jurkat wild-type (WT, lane 1) and CD5 knockout (KO, lane 2) whole-cell lysates using CD5 Rabbit Polyclonal Antibody at 0.5 ug/ml. A band at approximately 67 kDa is detected in WT cells but is absent in CD5 KO cells, supporting antibody specificity for CD5. This migration is higher than the approximately 55 kDa predicted molecular weight, consistent with the known glycosylation of CD5. GAPDH serves as the loading control, and each lane contained 30 ug of protein.

Description

CD5 Polyclonal Antibody / CD5 Antibody for FACS targets CD5, a type I transmembrane glycoprotein belonging to the scavenger receptor cysteine-rich (SRCR) superfamily. CD5 is predominantly expressed on T lymphocytes and selected B-cell populations, where it functions as both a surface marker and a regulator of immune receptor signaling. Its extracellular region contains three SRCR domains, while its cytoplasmic tail participates in signaling interactions that influence lymphocyte activation. CD5 plays an important role in maintaining immune homeostasis by modulating cellular responses to antigen recognition and helping establish appropriate activation thresholds.

In T lymphocytes, CD5 expression is closely associated with the strength of signaling received through the T-cell receptor (TCR). During thymocyte development, CD5 levels generally correlate with the intensity of interactions between the TCR and self-peptide-MHC complexes. CD5 contributes to negative regulation of TCR signaling, helping limit excessive activation while preserving responsiveness to foreign antigens. Its intracellular region interacts with signaling-associated proteins, and its regulatory effects depend on the activation state and cellular context. These properties make CD5 an important component of the mechanisms governing T-cell selection, peripheral tolerance, and immune responsiveness.

Although CD5 is widely recognized as a T-cell marker, it is also expressed by certain B-cell populations. CD5-positive B cells have been associated with specialized immune functions, including the production of natural antibodies and

regulation of inflammatory responses. Aberrant CD5 expression is particularly relevant in hematologic malignancies. Chronic lymphocytic leukemia and mantle cell lymphoma commonly exhibit CD5 expression, making the protein an important component of immunophenotypic characterization. CD5 expression can also vary among other lymphoid neoplasms, emphasizing the importance of interpreting this marker alongside additional lineage-associated proteins.

CD5 Polyclonal Antibody is relevant to investigations of lymphocyte differentiation, antigen receptor signaling, immune tolerance, and lymphoid malignancies. Understanding the mechanisms controlling CD5 expression and signaling activity may provide insight into how immune cells balance activation with inhibitory regulation. Its dual significance as a lymphocyte marker and signaling regulator continues to support research into adaptive immunity, immune dysfunction, and cancer-associated alterations in lymphocyte biology.

For additional CD5 research, explore our CD5 Antibody CD5/2416, a mouse monoclonal antibody with HuProt protein microarray specificity validation and supporting Western blot, IHC, and flow cytometry data.

Application Notes

Optimal dilution of the CD5 Polyclonal Antibody / CD5 Antibody for FACS should be determined by the researcher.

Immunogen

Human CD5 recombinant protein (amino acids R25-L495) was used as the immunogen for the CD5 Polyclonal Antibody.

Storage

After reconstitution, the CD5 Polyclonal Antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

Alternate Names

CD5 antibody, CD5 polyclonal antibody, T cell surface glycoprotein CD5 antibody, T-cell differentiation antigen CD5 antibody, LEU1 antibody, Leu-1 antibody, Lymphocyte antigen CD5 antibody, CD5 cell surface antigen antibody, CD5 glycoprotein antibody, CD5 T lymphocyte marker antibody

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