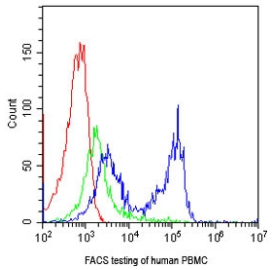
CD7 Antibody for FACS / CD7 Flow Cytometry Antibody (RQ4098)

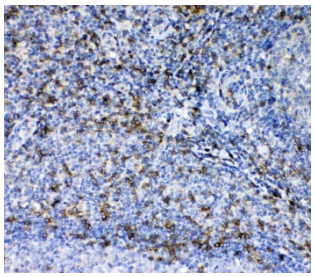
Catalog No.	Formulation	Size
RQ4098	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity purified
Buffer	Lyophilized from 1X PBS with 2% Trehalose and 0.025% sodium azide
UniProt	P09564
Localization	Cytoplasmic, membrane
Applications	Flow Cytometry : 1-3ug/10^6 cells IHC (FFPE) : 1-2ug/ml Direct ELISA : 0.1-0.5ug/ml
Limitations	This CD7 Antibody for FACS / CD7 Flow Cytometry Antibody is available for research use only.



CD7 Antibody for FACS. Flow cytometry analysis of human PBMC stained with CD7 / T-cell antigen CD7 demonstrates a distinct rightward fluorescence shift of CD7-positive lymphocyte populations (blue) compared to isotype control (green) and unstained cells (red), supporting clear population separation and reliable gating of CD7-expressing T cells in immune profiling assays.



IHC testing of FFPE human tonsil tissue with CD7 antibody at 1ug/ml. Required HIER: steam section in pH6 citrate buffer for 20 min and allow to cool prior to testing.

Description

Cluster of Differentiation 7 (CD7) is a transmembrane glycoprotein (CD7) expressed on T lymphocytes and natural killer (NK) cells, where it localizes to the cell surface and functions in immune signaling and activation. CD7 Antibody for FACS / CD7 Flow Cytometry Antibody is specifically optimized for flow cytometry analysis, enabling high-resolution detection of CD7-positive immune cell populations in suspension-based assays such as peripheral blood, bone marrow, and cultured cells.

CD7 antibody, also known as T-cell antigen CD7 antibody, is a core marker in flow cytometry immunophenotyping panels used to identify T cells and NK cells. In FACS analysis, CD7 is detected as a strong and consistent surface antigen on the majority of circulating T lymphocytes, producing a clear fluorescence shift that allows precise gating of CD7-positive populations. This distinct signal separation is essential for accurately distinguishing lymphocyte subsets from other hematopoietic cells in complex samples.

This CD7 Antibody for FACS is uniquely positioned for cell surface detection, where accessibility of the antigen enables efficient staining without the need for permeabilization in standard workflows. In flow cytometry experiments, this supports rapid staining protocols and preserves cell integrity, which is particularly important for live-cell analysis and downstream functional assays. The antibody enables reproducible detection across a range of sample types, including whole blood, peripheral blood mononuclear cells (PBMCs), and cultured immune cell lines.

In multicolor flow cytometry panels, CD7 is frequently combined with markers such as CD3, CD4, CD8, CD2, and CD5 to define T cell subsets and characterize immune populations with high specificity. The CD7 Flow Cytometry Antibody supports clean population resolution in these panels, allowing reliable identification of CD7-positive T cells and NK cells even in complex, high-parameter analyses. Its strong signal-to-noise profile contributes to accurate gating strategies and minimizes ambiguity in population boundaries.

CD7 flow cytometry is also widely applied in hematologic malignancy research, where it plays a critical role in leukemia and lymphoma immunophenotyping. CD7 expression is commonly assessed in T-cell acute lymphoblastic leukemia (T-ALL) and other lymphoproliferative disorders, where its presence, absence, or aberrant expression can aid in lineage classification and disease characterization. The ability to detect subtle shifts in CD7 expression makes it a valuable marker for studying immune dysregulation and malignant transformation.

This rabbit polyclonal CD7 antibody provides robust and consistent labeling in flow cytometry applications, supporting clear identification of CD7-positive populations with minimal non-specific background. Its performance in FACS assays enables reliable population gating, strong fluorescence signal separation, and reproducible results across experiments. Overall, CD7 Antibody for FACS serves as a dependable tool for immune profiling, multicolor panel design, and detailed analysis of T cell and NK cell populations in flow cytometry-based research.

This antibody is part of a broader CD7 antibody collection designed to support T cell biology, immune profiling, and hematologic cancer research.

Application Notes

Optimal dilution of the CD7 Antibody for FACS / CD7 Flow Cytometry Antibody should be determined by the researcher.

Immunogen

A recombinant human partial protein corresponding to amino acids A26-D172 was used as the immunogen for the CD7 antibody.

Storage

After reconstitution, the CD7 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

CD7 flow cytometry antibody, CD7 FACS antibody, T-cell antigen CD7 antibody, CD7 lymphocyte marker antibody, CD7 immune profiling antibody