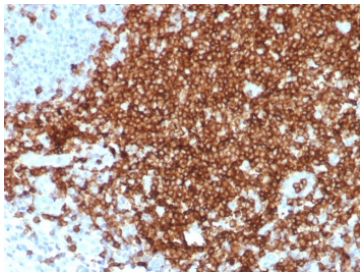
CD7 Antibody / T Cell Lineage Marker Antibody [clone CD7/8496R] (V4558)

Catalog No.	Formulation	Size
V4558-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V4558-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V4558SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

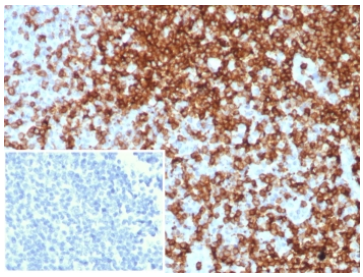
Recombinant RABBIT MONOCLONAL

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG, kappa
Clone Name	CD7/8496R
Purity	Protein A/G affinity
UniProt	P09564
Localization	Cell Surface
Applications	Western Blot : 1-2ug/ml Immunohistochemistry (FFPE) : 1-2ug/ml for 30 min at RT
Limitations	This CD7 Antibody / T Cell Lineage Marker Antibody is available for research use only.



CD7 Antibody Tonsil IHC. Immunohistochemistry analysis of CD7 / T-cell antigen CD7 in human tonsil tissue demonstrates strong HRP-DAB brown membranous staining of densely packed lymphoid cells within interfollicular regions, consistent with widespread CD7 expression across T cell lineage populations, while surrounding non-lymphoid areas remain largely negative. Recombinant CD7 antibody clone CD7/8496R was applied following heat-induced epitope retrieval in pH 9 Tris-EDTA buffer, supporting its use as a T cell lineage marker in FFPE tissue sections.



CD7 Antibody Human Tonsil IHC. Immunohistochemistry analysis of CD7 / T-cell antigen CD7 in human tonsil tissue shows strong HRP-DAB brown membranous staining of lymphoid cells within interfollicular regions, consistent with CD7 expression across T cell lineage populations, while surrounding areas remain largely negative. The inset shows absence of staining when PBS is used in place of primary antibody, confirming specificity. CD7 antibody clone CD7/8496R was applied following heat-induced epitope retrieval in pH 9 Tris-EDTA buffer, supporting its use as a T cell lineage marker in FFPE tissue sections.

Description

Cluster of Differentiation 7 (CD7) is a transmembrane glycoprotein (CD7) belonging to the immunoglobulin superfamily and is broadly expressed on T lymphocytes and natural killer (NK) cells, where it localizes to the plasma membrane and contributes to immune signaling. CD7 Antibody / T Cell Lineage Marker Antibody is uniquely positioned for defining T cell lineage identity, enabling robust identification of T lymphocyte populations across developmental stages, tissue environments, and experimental systems.

CD7 antibody, also referred to as T-cell antigen CD7 antibody, is widely recognized as a pan-T cell lineage marker due to its consistent and early expression across the T cell compartment. This stable expression profile allows CD7 to serve as a foundational marker for distinguishing T lymphocytes from other hematopoietic populations, including B cells, myeloid cells, and stromal elements. As a result, CD7 plays a central role in lineage classification strategies used in both basic immunology and applied research settings.

This CD7 Antibody is uniquely positioned for lineage-driven studies, where accurate identification of T cell populations is essential. In complex biological samples such as lymphoid tissues, peripheral blood, or mixed cell cultures, CD7 enables clear delineation of T cell populations, supporting downstream analyses of immune composition, cellular interactions, and functional heterogeneity. Its consistent expression across most T cells ensures reliable detection even in variable experimental conditions.

Importantly, CD7 expression is initiated early during T cell lineage commitment in the thymus and maintained throughout maturation into peripheral T cells. This continuity links early developmental processes with mature immune function, allowing CD7 to be used as a unifying marker across the full T cell lifecycle. Researchers can therefore use CD7 to track lineage progression while simultaneously defining mature T cell populations within the same experimental framework.

In immune profiling studies, CD7 is frequently combined with other lineage-defining markers such as CD3, CD4, CD8, and CD5 to refine T cell subset identification and to characterize functional diversity within the T cell compartment. This combinatorial approach enhances resolution and enables detailed analysis of immune cell populations in both normal and disease contexts.

The reliability of CD7 as a lineage marker also makes it particularly useful in experiments requiring quantitative assessment of T cell populations, such as immune monitoring, population dynamics studies, and evaluation of experimental perturbations. Its broad expression minimizes false negatives and supports consistent identification of lineage-defined cells.

Overall, CD7 Antibody (clone CD7/8496R) as a T Cell Lineage Marker Antibody provides a highly effective tool for defining T lymphocyte identity, enabling precise lineage classification, supporting immune profiling strategies, and facilitating detailed investigation of T cell biology across diverse experimental systems.

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 / T Cell Lineage Marker Antibody should be determined by the researcher.

Immunogen

A recombinant partial protein sequence (within amino acids 72-175) from the human protein was used as the immunogen for the recombinant CD7 antibody.

Storage

Aliquot the recombinant CD7 antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

Alternate Names

CD7 T cell lineage antibody, CD7 pan T cell marker antibody, T-cell antigen CD7 antibody, CD7 lymphocyte lineage antibody, CD7 immune profiling antibody