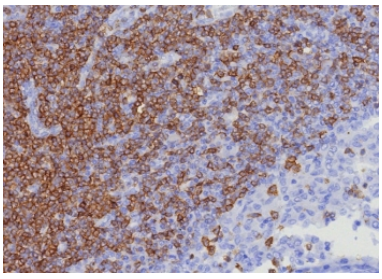
CD7 Antibody Rabbit Monoclonal [clone CD7/8357R] (V4560)

Catalog No.	Formulation	Size
V4560-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V4560-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V4560SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

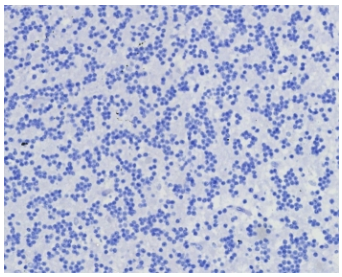
Recombinant RABBIT MONOCLONAL

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	CD7/8357R
Purity	Protein A/G affinity
UniProt	P09564
Localization	Cell Surface
Applications	Immunohistochemistry (FFPE) : 1-2ug/ml for 30 min at RT
Limitations	This CD7 antibody is available for research use only.



Immunohistochemistry analysis of CD7 antibody in human lymph node tissue. FFPE human lymph node shows strong membranous HRP-DAB brown staining in a dense population of small lymphocytes consistent with CD7-positive T cells within the paracortical regions, while surrounding non-lymphoid stromal areas remain largely negative. Antigen retrieval was performed by boiling tissue sections in 10mM Tris with 1mM EDTA, pH 9.0, for 20 minutes followed by cooling prior to incubation with CD7 antibody (clone CD7/8357R).



Negative control: IHC testing of FFPE human brain tissue with CD7 antibody (clone CD7/8357R) at 2ug/ml. HIER: boil tissue sections in pH 9 10mM Tris with 1mM EDTA for 20 min and allow to cool before testing.

Description

CD7 antibody, also known as CD7 antigen antibody, recognizes Cluster of Differentiation 7, a type I transmembrane glycoprotein of the immunoglobulin superfamily that is predominantly expressed on thymocytes, mature T lymphocytes, and natural killer cells. CD7 is localized to the plasma membrane and functions as a co-stimulatory receptor involved in T cell activation, cytokine production, and immune signaling. It plays an important role in early T cell development within the thymus and remains expressed on most peripheral T cells, making CD7 antibody a valuable tool for studying T lineage biology and immune cell differentiation.

The CD7 gene is located on chromosome 17q25.2 and encodes a protein containing a single extracellular immunoglobulin-like domain, a hydrophobic transmembrane region, and a short cytoplasmic tail involved in intracellular signaling. Through homotypic and heterotypic interactions, CD7 contributes to the modulation of signaling pathways that regulate lymphocyte activation and proliferation. CD7 antibody supports investigations into thymocyte maturation, peripheral T cell homeostasis, and lymphoid tissue organization.

CD7 antibody is frequently used in research related to hematologic malignancies. CD7 expression is commonly retained in T cell acute lymphoblastic leukemia and various peripheral T cell lymphomas, while aberrant expression patterns may be observed in certain myeloid leukemias. Changes in CD7 expression can assist in the characterization of lymphoproliferative disorders and provide insight into lineage origin and disease progression. As a result, CD7 antibody is widely applied in immunophenotypic and translational research settings focused on lymphoid neoplasms.

Clone CD7/8357R is a recombinant rabbit monoclonal antibody designed to detect CD7 with high specificity and reproducibility. Recombinant production ensures defined sequence identity and consistent performance between manufacturing lots compared to traditional hybridoma-derived reagents. A recombinant CD7 antibody rabbit monoclonal format offers strong affinity and reliable detection of membrane-associated CD7 in research applications.

In addition to oncology research, CD7 antibody is relevant in studies of immune reconstitution, transplantation immunology, and autoimmune disease models in which T cell subsets are central to pathogenesis. By targeting a lineage-associated surface antigen expressed early in thymocyte development and maintained on mature T cells, clone CD7/8357R provides a dependable tool for examining immune cell dynamics and T cell-mediated immune responses.

Application Notes

Optimal dilution of the CD7 antibody should be determined by the researcher.

Immunogen

A recombinant partial protein sequence (within amino acids 1-200) from the human protein was used as the immunogen for the CD7 antibody.

Storage

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