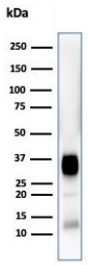
CD7 Antibody CD7/3868R / T-Cell Antigen CD7 Monoclonal Antibody [clone CD7/3868R] (V4564)

Catalog No.	Formulation	Size
V4564-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V4564-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V4564SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

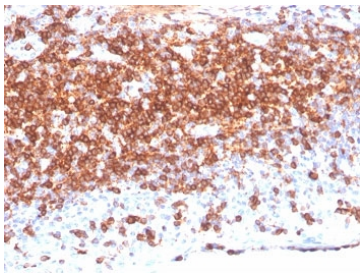
Recombinant RABBIT MONOCLONAL

Bulk quote request

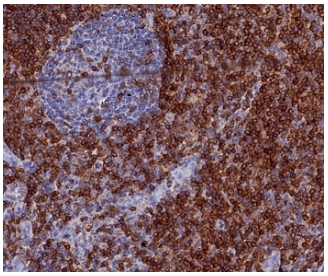
Species Reactivity	Human
Format	Purified
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG, kappa
Clone Name	CD7/3868R
Purity	Protein A/G affinity
UniProt	P09564
Localization	Cell Surface
Applications	Western blot: 1-2ug/ml Immunohistochemistry (FFPE): 1-2ug/ml for 30 min at RT
Limitations	This CD7 Antibody CD7/3868R / T-Cell Antigen CD7 Monoclonal Antibody is available for research use only.



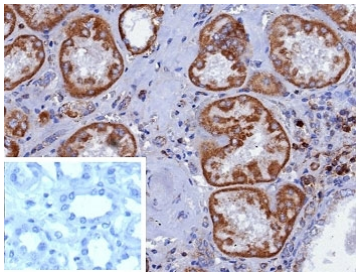
CD7 Antibody CD7/3868R Western Blot Analysis of Human Jurkat Cell Lysate. Western blot analysis of human Jurkat cell lysate using T-Cell Antigen CD7 Monoclonal Antibody clone CD7/3868R. An immunoreactive band is detected at approximately 30-35 kDa, consistent with the reported migration range of CD7. The protein is commonly described as a glycoprotein of approximately 40 kDa, with glycosylation contributing to variation in its apparent molecular weight.



CD7 Antibody CD7/3868R IHC Staining of Human Lymph Node Tissue. Immunohistochemical analysis of FFPE human lymph node tissue using T-Cell Antigen CD7 Monoclonal Antibody clone CD7/3868R. Brown DAB staining is observed in numerous lymphoid cells, with prominent staining along cell membranes and associated cytoplasmic regions. Heat-induced epitope retrieval was performed using 10 mM Tris with 1 mM EDTA at pH 9 for 20 minutes.



CD7 Antibody CD7/3868R IHC Staining of Human Tonsil Tissue. Immunohistochemical analysis of FFPE human tonsil tissue using T-Cell Antigen CD7 Monoclonal Antibody clone CD7/3868R. Brown DAB staining is distributed throughout the lymphocyte-rich interfollicular tissue, while the germinal center shows comparatively limited staining. This distribution is consistent with the enrichment of CD7-expressing T lymphocytes outside B-cell follicles. Heat-induced epitope retrieval was performed using 10 mM Tris with 1 mM EDTA at pH 9 for 20 minutes.



CD7 Antibody CD7/3868R IHC Staining of Human Kidney Tissue. Immunohistochemical analysis of FFPE human kidney tissue using T-Cell Antigen CD7 Monoclonal Antibody clone CD7/3868R. Brown DAB staining is observed in renal tubular epithelial structures, with staining along cellular membranes and within portions of the cytoplasm. The inset shows a negative control in which PBS was substituted for the primary antibody. Heat-induced epitope retrieval was performed using 10 mM Tris with 1 mM EDTA at pH 9 for 20 minutes.

Description

CD7 Antibody CD7/3868R / T-Cell Antigen CD7 Monoclonal Antibody recognizes CD7, a cell-surface glycoprotein belonging to the immunoglobulin superfamily. Also known as T-cell leukemia antigen or GP40, CD7 is expressed primarily on T lymphocytes and natural killer (NK) cells. It appears early during T-cell development and remains detectable on most mature peripheral T cells. CD7 is a type I transmembrane protein with an extracellular immunoglobulin-like domain, a single membrane-spanning segment, and a cytoplasmic tail. Its expression and membrane localization make CD7 an established marker for identifying lymphoid populations and investigating T-cell differentiation.

CD7 participates in immune cell interactions and has been implicated in the regulation of T-cell activation and signaling. Although its precise physiological functions are not completely understood, CD7 engagement can influence intracellular calcium responses, cellular adhesion, and signaling pathways associated with lymphocyte activation. The protein undergoes post-translational glycosylation, which contributes to differences between its calculated molecular weight and apparent migration during electrophoresis. CD7 is commonly described as a glycoprotein of approximately 40 kDa, although its observed molecular weight can vary with glycosylation and experimental conditions.

CD7 expression is particularly important during thymocyte development, where it is among the earliest surface antigens associated with T-cell lineage commitment. Mature T lymphocytes generally retain CD7 expression, although subsets with reduced or absent CD7 can occur under physiological and pathological conditions. NK cells also commonly express CD7, supporting its use in studies of innate and adaptive lymphocyte populations. Changes in CD7 expression have been documented during immune activation and differentiation, reflecting the complexity of lymphocyte surface antigen regulation.

CD7 is frequently investigated in hematologic malignancies, including T-cell acute lymphoblastic leukemia and various mature T-cell lymphomas. Aberrant CD7 expression or loss can contribute to the immunophenotypic characterization of these disorders, while its presence on malignant T cells has attracted interest in targeted therapeutic development. CD7-directed cellular therapies and other experimental approaches are being investigated for selected T-cell

malignancies. The recombinant CD7 Antibody CD7/3868R provides a defined monoclonal reagent for examining CD7 protein expression and distribution, supporting research into T-cell development, lymphoid differentiation, and CD7-associated hematologic disease.

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 CD7/3868R / T-Cell Antigen CD7 Monoclonal Antibody should be determined by the researcher.

Immunogen

Recombinant full-length human CD7 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.

Alternate Names

CD7 western blot antibody, CD7 WB antibody, CD7 monoclonal antibody, T-cell antigen CD7 antibody, CD7 immunoblot antibody

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