CD7 Antibody for IHC / CD7 Immunohistochemistry Antibody [clone MSVA-007R] (V6142)

Catalog No.	Formulation	Size
V6142-100UG	Antibody in 1X PBS with 0.05% BSA, 0.05% sodium azide	100 ug
V6142-20UG	Antibody in 1X PBS with 0.05% BSA, 0.05% sodium azide	20 ug

Recombinant RABBIT MONOCLONAL

Bulk quote request

Species Reactivity	Human
Format	Purified
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG, kappa
Clone Name	MSVA-007R
UniProt	P09564
Localization	Cell membrane
Applications	Immunohistochemistry (FFPE) : 1:100-1:200
Limitations	This CD7 Antibody for IHC / CD7 Immunohistochemistry Antibody is available for research use only.

CD7 Antibody for IHC Tissue Microarray (TMA). Immunohistochemistry analysis of CD7 molecule / CD7, also known as T-cell antigen CD7, in formalin-fixed paraffin-embedded human normal and cancer tissue microarrays using recombinant rabbit monoclonal CD7 antibody clone MSVA-007R. Tissue microarray (TMA) staining with HRP-DAB brown chromogen demonstrates selective membranous localization in T lymphocyte populations within lymphoid-rich regions, including tonsil, lymph node, and thymus, while most non-lymphoid tissues remain largely negative. Within tumor tissue microarrays, staining highlights T cell populations and tumor-infiltrating lymphocytes, supporting evaluation of immune cell distribution in the tumor microenvironment. Evaluation across large TMA panels enables direct comparison of CD7 expression across diverse tissue types under standardized conditions. The observed staining patterns align with reported CD7 expression profiles in publicly available datasets including the Human Protein Atlas.

Description

Cluster of Differentiation 7 (CD7) is a transmembrane glycoprotein (CD7) belonging to the immunoglobulin superfamily

and is predominantly expressed on T lymphocytes and natural killer (NK) cells, where it localizes to the cell membrane and mediates immune signaling interactions. CD7 Antibody for IHC / CD7 Immunohistochemistry Antibody (clone MSVA-007R) is optimized for immunohistochemistry analysis of formalin-fixed, paraffin-embedded (FFPE) tissues, enabling high-resolution visualization of T cell distribution within intact tissue architecture.

CD7 antibody, also referred to as T-cell antigen CD7 antibody, is a cornerstone marker in immunohistochemistry for identifying T lymphocytes across a wide range of human tissues. In FFPE sections, CD7 immunohistochemistry produces distinct membrane staining of T cells and NK cells, with strong labeling in lymph node paracortical zones, tonsillar interfollicular regions, thymic cortex, and other T cell-rich compartments. This clear compartmentalized staining pattern makes CD7 particularly valuable for evaluating immune cell localization, tissue organization, and lymphoid architecture in histological specimens.

This CD7 Antibody for IHC is uniquely positioned for tissue-based analysis through extensive validation on human tissue microarrays (TMAs), where dozens of normal and cancer tissues are analyzed in parallel. In normal tissue TMA panels, CD7 staining is highly restricted to lymphoid populations, with negligible staining in epithelial, stromal, or parenchymal compartments. This restricted and biologically expected pattern strengthens confidence in specificity and makes the antibody especially useful for distinguishing lymphocyte populations within complex tissue environments.

In cancer tissue microarrays, CD7 immunohistochemistry enables precise visualization of tumor-infiltrating lymphocytes across a wide spectrum of malignancies. CD7-positive immune cells are readily identified within tumor stroma and at tumor margins, supporting studies of immune infiltration, tumor-immune interaction, and microenvironmental heterogeneity. The ability to compare staining across multiple tumor types within TMA formats further enhances the utility of this antibody for translational research and biomarker exploration.

Clone MSVA-007R, a recombinant rabbit monoclonal antibody, delivers strong and consistent staining in immunohistochemistry applications, with crisp membrane localization and low non-specific background. The antibody performs reliably in FFPE tissue sections following heat-induced epitope retrieval, producing clean, interpretable staining that highlights individual T lymphocytes without obscuring surrounding tissue morphology. This level of signal clarity is particularly important in high-density tissue microarrays, where accurate cell identification across many cores is required.

The combination of robust TMA validation, highly specific lymphoid staining patterns, and strong performance in FFPE immunohistochemistry positions this CD7 Antibody for IHC as a powerful tool for studying T cell biology in situ. It supports detailed analysis of immune cell distribution in normal tissues, enables assessment of immune infiltration in cancer, and provides a reliable marker for histology-based immunology and hematopathology research.

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

This antibody is also part of a broader collection of IHC antibodies validated by tissue microarray analysis, supporting consistent staining across normal and cancer tissues.

Application Notes

1. Optimal dilution of the CD7 Antibody for IHC / CD7 Immunohistochemistry Antibody should be determined by the researcher.

2. This CD7/CD7 molecule antibody is recombinantly produced by expression in human HEK293 cells.

3. Manual Protocol: Freshly cut sections should be used (less than 10 days between cutting and staining). Heat-induced antigen retrieval for 5 minutes in an autoclave at 121oC in pH 7.8 Target Retrieval Solution buffer. Apply the antibody at a dilution of 1:150 at 37oC for 60 minutes. Visualization of bound antibody by the EnVision Kit (Dako, Agilent) according to the manufacturer's directions.

Immunogen

A recombinant fragment (around amino acids 1-240) of human CD7 protein (exact sequence is proprietary) was used as the immunogen for the CD7 antibody.

Storage

CD7 / CD7 molecule antibody with sodium azide - store at 2 to 8oC; antibody without sodium azide - store at -20 to -80oC.

Alternate Names

CD7 T cell marker antibody, T-cell antigen CD7 antibody, CD7 immunohistochemistry antibody, CD7 FFPE tissue antibody, CD7 lymphocyte marker antibody