CD5 Antibody for IHC / CD5 Immunohistochemistry Antibody [clone MSVA-005R] (V6141)

Catalog No.	Formulation	Size
V6141-100UG	Antibody in 1X PBS with 0.05% BSA, 0.05% sodium azide	100 ug
V6141-20UG	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-005R
UniProt	P06127
Localization	Cell membrane
Applications	Immunohistochemistry (FFPE) : 1:100-1:200
Limitations	This CD5 Antibody for IHC / CD5 Immunohistochemistry Antibody is available for research use only.

CD5 Antibody for IHC Tissue Microarray (TMA). Immunohistochemistry analysis of CD5 molecule / CD5 in formalin-fixed paraffin-embedded human normal and cancer tissue microarrays using recombinant rabbit monoclonal CD5 antibody clone MSVA-005R. Tissue microarray (TMA) staining with HRP-DAB brown chromogen demonstrates strong membranous localization in T lymphocyte-rich tissues including tonsil, lymph node, and thymus, highlighting dense labeling of lymphoid zones, while most non-hematologic tissues remain largely negative. Within tumor tissue microarrays, prominent staining is observed in lymphoid malignancies such as Hodgkin lymphoma, mantle cell lymphoma, and CD5-positive B cell neoplasms, with signal also present in infiltrating immune cells within other tumor types. Evaluation across large TMA panels enables direct comparison of CD5 expression across diverse tissue types under standardized conditions. The observed staining patterns align with established CD5 biology and reported expression profiles in publicly available datasets including the Human Protein Atlas.

Description

CD5 (CD5) is a type I transmembrane glycoprotein and member of the scavenger receptor cysteine-rich (SRCR) superfamily, localized to the plasma membrane of T lymphocytes and a subset of B cells. CD5 Antibody for IHC / CD5 Immunohistochemistry Antibody is specifically suited for detecting CD5 expression in formalin-fixed, paraffin-embedded (FFPE) tissue sections, including large-scale tissue microarray (TMA) formats that enable simultaneous analysis across many normal and cancer tissues. CD5 antibody, also referred to as T cell surface glycoprotein CD5 antibody or LEU1 antibody, is a foundational immunohistochemistry marker used to identify T cell-rich compartments and characterize lymphoid infiltrates in both single-section and high-throughput tissue microarray studies.

Functionally, CD5 acts as a key modulator of antigen receptor signaling, attenuating T cell receptor (TCR) activation and contributing to immune tolerance and signaling threshold control. It is strongly expressed in thymocytes and mature peripheral T cells, with additional expression in CD5-positive B cell subsets such as mantle zone B cells and certain innate-like B cell populations. In immunohistochemistry applications, CD5 antibody staining produces a distinct membranous pattern outlining T lymphocytes within lymphoid organs including tonsil, lymph node, thymus, and spleen, while also highlighting scattered CD5-positive B cells. This well-defined cell surface staining is particularly advantageous in TMA-based immunohistochemistry, where consistent membrane labeling across hundreds of tissue cores supports reliable comparative analysis.

For diagnostic immunohistochemistry, CD5 is a critical lineage-associated marker used in the classification of lymphoid malignancies. CD5 immunohistochemistry antibody staining is routinely incorporated into panels designed to distinguish T cell lymphomas from B cell neoplasms, while also identifying CD5-positive B cell disorders such as chronic lymphocytic leukemia (CLL) and mantle cell lymphoma. In tissue microarray (TMA) cohorts and tumor microarrays containing diverse cancer types, CD5 staining highlights lymphoid infiltrates and tumor-associated immune cells, providing spatial and comparative insight into immune involvement across multiple disease contexts. The ability to evaluate CD5 expression across many samples in a single TMA slide strengthens its utility for both biomarker validation and translational research.

This rabbit monoclonal antibody clone MSVA-005R has been developed for robust performance in immunohistochemistry, enabling consistent detection of CD5 in FFPE tissues as well as high-density tissue microarrays. Across normal tissue microarray panels, CD5 staining demonstrates expected strong membranous labeling in T cell zones, including thymus and lymphoid tissues, with minimal background in non-lymphoid parenchyma. In cancer tissue microarrays, including lymphoma samples, strong CD5 positivity is observed in T cell-rich malignancies and in defined CD5-positive B cell neoplasms, while most non-hematologic tumors remain negative except for infiltrating immune cells. These staining patterns align with established biological expression profiles and reinforce the reliability of this CD5 antibody for IHC in both standard histology sections and multiplexed TMA formats.

Because CD5 expression is tightly linked to immune cell identity, activation state, and lymphoid organization, the CD5 antibody for IHC is widely used to study immune infiltration, characterize tumor microenvironments, and evaluate hematologic malignancies within their histological context. Its consistent membranous staining, strong performance in FFPE samples, and compatibility with tissue microarray (TMA) analysis make it especially well suited for applications requiring high-throughput tissue profiling, comparative pathology studies, and detailed spatial mapping of immune cell populations.

A full range of CD5 antibody reagents for immunohistochemistry, western blot, and flow cytometry is available on our CD5 Antibody collection page.

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 CD5 Antibody for IHC / CD5 Immunohistochemistry Antibody should be determined by the researcher.

2. 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

Recombinant protein corresponding to human extracellular domain of CD5 (exact sequence is proprietary) was used as the immunogen for the CD5 / CD5 molecule antibody.

Storage

CD5 / CD5 molecule antibody with sodium azide - store at 2 to 8oC; antibody without sodium azide - store at -20 to -80oC.

Alternate Names

CD5 IHC antibody, CD5 immunohistochemistry antibody, T cell marker CD5 antibody, CD5 FFPE antibody, CD5 tissue staining antibody