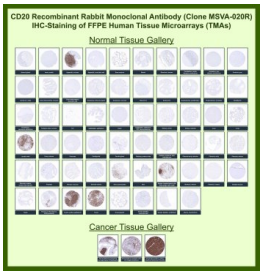
CD20 Antibody for IHC / MS4A1 Immunohistochemistry Antibody [clone MSVA-020R] (V6037)

Catalog No.	Formulation	Size
V6037-100UG	Antibody in 1X PBS with 0.05% BSA, 0.05% sodium azide	100 ug
V6037-20UG	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-020R
UniProt	P11836
Localization	Cell membrane
Applications	Immunohistochemistry (FFPE) : 1:100-1:200
Limitations	This CD20 Antibody for IHC / MS4A1 Immunohistochemistry Antibody is available for research use only.



CD20 Antibody for IHC Tissue Microarray (TMA). Immunohistochemistry analysis of CD20 molecule MS4A1 in formalin-fixed paraffin-embedded human normal and cancer tissue microarrays using recombinant rabbit monoclonal CD20 antibody clone MSVA-020R. Tissue microarray (TMA) staining with HRP-DAB brown chromogen demonstrates strong membranous localization in B lymphocyte populations within tonsil, lymph node, and spleen, while non-lymphoid epithelial and stromal tissues remain largely negative. Within tumor tissue microarrays, diffuse membranous staining is observed in B cell lymphomas, enabling clear identification of B cell lineage malignancies, whereas most non-hematologic tumors show minimal to no staining. Evaluation across large TMA panels enables direct comparison of MS4A1 expression across diverse tissue types under standardized conditions. The observed staining patterns align with reported CD20 expression profiles in the Human Protein Atlas, supporting reliable detection of B lymphocytes and lymphoma characterization.

Description

CD20 (MS4A1) is a B cell-specific transmembrane protein that functions in calcium signaling and regulation of B lymphocyte activation and differentiation. It is widely used as a definitive marker of mature B cells and is a cornerstone target in diagnostic immunohistochemistry. CD20 Antibody for IHC is designed for detection of MS4A1 expression in formalin-fixed, paraffin-embedded (FFPE) tissues, enabling precise visualization of B cell populations and lymphoid architecture in tissue sections.

In immunohistochemistry, CD20 antibody, also known as MS4A1 antibody or B cell marker antibody, produces strong and sharply defined membranous staining that clearly delineates B lymphocytes. In FFPE human tissue microarrays (TMAs), this antibody demonstrates highly consistent staining across a wide range of normal tissues, with intense membranous labeling in lymph node follicles, tonsil germinal centers, spleen white pulp, and other lymphoid compartments. The use of large-scale TMAs highlights reproducibility across hundreds of tissue cores, confirming both specificity and low background in non-lymphoid epithelial and stromal tissues.

CD20 Antibody for IHC is particularly valuable in cancer tissue microarray analysis, where it robustly identifies B cell-derived malignancies. In TMA panels containing diverse tumor types, strong and diffuse membranous staining is observed in B cell lymphomas, including diffuse large B cell lymphoma and other non-Hodgkin lymphomas. This staining provides clear contrast against most non-hematologic malignancies, which typically show little to no CD20 expression. Additionally, the antibody enables visualization of tumor-infiltrating B lymphocytes within the tumor microenvironment, supporting studies of immune contexture and lymphoid involvement in cancer.

The membranous staining pattern produced by CD20 immunohistochemistry is highly specific and aligns with the known surface localization of the protein. Across FFPE TMAs, the antibody consistently delivers clean signal with minimal non-specific staining, allowing accurate interpretation of staining intensity and distribution across both normal and malignant tissues. The standardized format of tissue microarrays further strengthens confidence in cross-sample comparisons and biomarker validation studies.

Functionally, CD20 is expressed during most stages of B cell development but is absent in early progenitors and terminally differentiated plasma cells, making it a highly selective lineage marker. This restricted expression pattern enhances its diagnostic utility in immunohistochemistry, particularly for distinguishing B cell lymphomas from other hematologic and non-hematologic malignancies. Overall, CD20 Antibody for IHC provides reliable, high-contrast membranous staining in FFPE tissue microarrays, making it an essential tool for lymphoid tissue evaluation, lymphoma classification, and tumor microenvironment analysis.

This CD20 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 CD20 Antibody for IHC / MS4A1 Immunohistochemistry Antibody should be determined by the researcher.

2. This MS4A1/CD20 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

Recombinant human full-length MS4A1 protein was used as the immunogen for the MS4A1/CD20 antibody.

Storage

MS4A1/CD20 antibody with sodium azide - store at 2 to 8oC; antibody without sodium azide - store at -20 to -80oC.

Alternate Names

MS4A1 antibody, B-lymphocyte antigen CD20 antibody, B cell marker CD20 antibody, CD20 lymphoma marker antibody, B cell surface antigen antibody