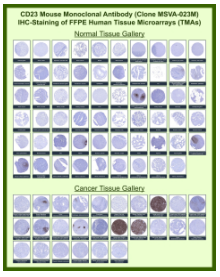
CD23 Antibody for IHC / FCER2 Immunohistochemistry Antibody [clone MSVA-023M] (V6074)

Catalog No.	Formulation	Size
V6074-100UG	Antibody in 1X PBS with 0.05% BSA, 0.05% sodium azide	100 ug
V6074-20UG	Antibody in 1X PBS with 0.05% BSA, 0.05% sodium azide	20 ug

Recombinant | MOUSE MONOCLONAL

Bulk quote request

Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Recombinant Mouse Monoclonal
Isotype	Mouse IgG1, kappa
Clone Name	MSVA-023M
UniProt	P06734
Localization	Cell membrane, Secreted
Applications	Immunohistochemistry (FFPE) : 1:100-1:200
Limitations	This CD23 Antibody for IHC / FCER2 Immunohistochemistry Antibody is available for research use only.



CD23 Antibody for IHC Tissue Microarray (TMA). Immunohistochemistry analysis of CD23 molecule FCER2 in formalin-fixed paraffin-embedded human normal and cancer tissue microarrays using mouse monoclonal antibody clone MSVA-023M. Tissue microarray (TMA) staining with HRP-DAB brown chromogen demonstrates strong membranous localization in B lymphocytes within tonsil and lymph node germinal centers, consistent with expression in mature follicular B cells, while most non-lymphoid tissues show minimal to absent staining with only scattered positive lymphoid cells. Within tumor tissue microarrays, distinct membranous staining is observed in CD23-positive B cell lymphomas, whereas the majority of non-lymphoid malignancies remain negative. Evaluation across large TMA panels enables direct comparison of FCER2 expression across diverse tissue types under standardized conditions. The observed staining patterns align with reported CD23 expression profiles in the Human Protein Atlas and support its use as a marker of mature B cell lineage.

Description

Fc epsilon receptor II (FCER2), more commonly known as CD23, is a low-affinity IgE receptor primarily expressed on mature B lymphocytes and follicular dendritic cells. CD23 Antibody for IHC / FCER2 Immunohistochemistry Antibody is widely used to evaluate B cell populations and lymphoid tissue organization in formalin-fixed, paraffin-embedded specimens. Its restricted and well-characterized expression pattern makes CD23 a valuable marker for studying immune cell distribution and lymphoid architecture in both normal and disease contexts.

CD23 antibody, also referred to as FCER2 antibody or Fc epsilon receptor II antibody, produces characteristic membranous staining in B cell populations, often accompanied by cytoplasmic signal consistent with receptor internalization and turnover. In immunohistochemistry, strong staining is observed in germinal center B cells and follicular dendritic cell networks within lymphoid tissues such as tonsil, lymph node, and spleen. Tissue microarray (TMA) analysis further demonstrates consistent labeling of B cell-rich regions across a broad range of normal and cancer tissues, while most non-lymphoid tissues exhibit minimal to absent staining. This distinct staining profile supports its use as a lineage-associated marker with high specificity in tissue sections.

Tissue microarray-based evaluation provides an effective framework for comparing CD23 expression across multiple tissue types under uniform staining conditions. Across TMA panels, CD23 staining highlights follicular structures and lymphocyte populations with clear contrast relative to surrounding stromal and epithelial compartments. In cancer tissue arrays, CD23-positive tumor-infiltrating lymphocytes may be observed, reflecting immune involvement within the tumor microenvironment. These patterns align with known biology and support the use of CD23 antibody for comparative tissue profiling and immune context analysis.

In diagnostic and research settings, CD23 expression is frequently used in the classification of B cell lymphomas. It is characteristically expressed in chronic lymphocytic leukemia and small lymphocytic lymphoma, while showing variable or absent expression in other B cell neoplasms such as mantle cell lymphoma. The presence and distribution of CD23 staining, particularly within tissue architecture, provides important context for differentiating lymphoid malignancies when used alongside complementary markers.

Structurally, CD23 is a type II transmembrane protein and a member of the C-type lectin family, localized primarily to the cell membrane of activated B cells. It participates in immune regulation through binding IgE and modulating antigen presentation and B cell signaling pathways. Expression can be influenced by immune activation states, further contributing to its functional relevance in lymphoid tissues.

Overall, CD23 Antibody for IHC enables reliable detection of FCER2 expression with clear membranous staining patterns and strong performance across tissue microarray panels. Its consistent expression in B cell populations and defined distribution in lymphoid structures support its use in immunohistochemistry for tissue characterization, immune profiling, and lymphoma classification studies.

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 CD23 Antibody for IHC / FCER2 Immunohistochemistry Antibody should be determined by the researcher.

2. This FCER2/CD23 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 48-321) of human FCER2/CD23 protein (exact sequence is proprietary) was used as the immunogen for the FCER2/CD23 antibody for IHC.

Storage

FCER2/CD23 antibody with sodium azide - store at 2 to 8oC; antibody without sodium azide - store at -20 to -80oC.

Alternate Names

CD23 antibody, FCER2 antibody, Fc epsilon receptor II antibody, Low affinity IgE receptor antibody, B cell activation marker antibody