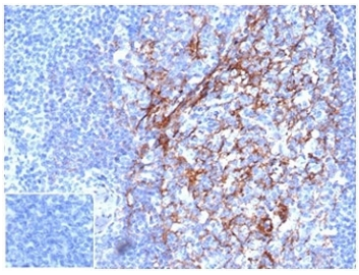
CD23 Antibody - HuProt Validated [clone FCER2/6887] (V9384)

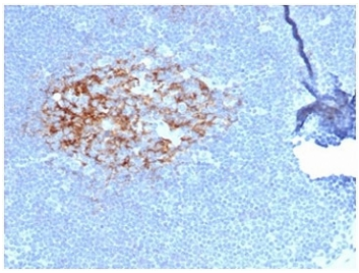
Catalog No.	Formulation	Size
V9384-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V9384-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V9384SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Bulk quote request

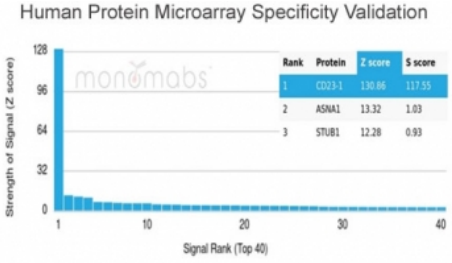
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG2b, kappa
Clone Name	FCER2/6887
Purity	Protein A/G affinity
UniProt	P06734
Localization	Cell Surface
Applications	Immunohistochemistry (FFPE) : 1-2ug/ml
Limitations	This CD23 antibody is available for research use only.



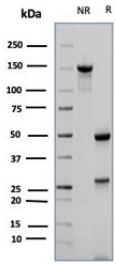
Immunohistochemistry of CD23 Antibody in human tonsil. FFPE human tonsil tissue was stained with CD23 antibody (clone FCER2/6887) at 2 ug/ml in PBS for 30 minutes at room temperature. Prominent membranous HRP-DAB brown staining is observed in B lymphocytes within germinal centers and mantle zone regions, consistent with known CD23 expression on mature follicular B cells. The staining pattern highlights follicular architecture, with dense membrane labeling in B cell rich areas and minimal staining in adjacent T cell predominant interfollicular zones. The negative control inset shows tissue processed with PBS in place of primary antibody, demonstrating absence of non-specific secondary antibody binding. Heat induced epitope retrieval was performed by boiling tissue sections in pH 9 Tris-EDTA buffer for 20 minutes followed by cooling prior to antibody incubation. Clone FCER2/6887 is supported by human protein microarray validation demonstrating target specificity.



Immunohistochemistry of CD23 Antibody in human lymph node. FFPE human lymph node tissue was stained with CD23 antibody (clone FCER2/6887) at 2 ug/ml in PBS for 30 minutes at room temperature. Distinct membranous HRP-DAB brown staining is observed in B lymphocytes within follicular germinal centers, consistent with established CD23 expression on mature follicular B cells. The staining pattern highlights nodal follicular architecture, with strong membrane labeling in B cell rich regions and minimal staining in surrounding paracortical T cell areas. Heat induced epitope retrieval was performed by boiling tissue sections in pH 9 Tris-EDTA buffer for 20 minutes followed by cooling prior to antibody incubation. Clone FCER2/6887 is supported by human tissue protein microarray validation demonstrating target specificity.



HuProt microarray analysis was performed to evaluate the specificity of CD23 antibody (clone FCER2/6887). The array contains more than 19,000 full-length human proteins. The antibody demonstrates highest reactivity with FCER2, confirming selective recognition of CD23, with substantially lower signal intensity observed for non-target proteins. These results support the specificity of the FCER2/6887 monoclonal antibody. Z- and S-score explanation: The Z-score represents the strength of the fluorescent signal generated when the antibody binds to a specific protein on the HuProt array, expressed in units of standard deviations above the mean signal of all proteins on the array. When proteins are arranged in descending order according to Z-score, the S-score is calculated as the difference in Z-scores between sequentially ranked proteins. The S-score therefore reflects the relative specificity of the antibody for its intended target compared to other proteins present on the array.



SDS-PAGE analysis of purified, BSA-free CD23 antibody (FCER2/6887) as confirmation of integrity and purity.

Description

CD23 Antibody - HuProt Validated clone FCER2/6887 recognizes CD23, a type II transmembrane glycoprotein encoded by the FCER2 gene on chromosome 19p13.3. CD23 is also known as Low affinity immunoglobulin epsilon Fc receptor or Fc epsilon receptor II and belongs to the C-type lectin family. It functions as the low affinity receptor for IgE and plays an essential role in regulating IgE mediated immune responses, B cell activation, and humoral immunity. CD23 is primarily expressed on mature B lymphocytes and certain activated immune cell populations.

Structurally, CD23 consists of a short N-terminal cytoplasmic domain, a single transmembrane region, and a large extracellular C-type lectin-like domain responsible for binding IgE. In addition to its membrane bound form, CD23 can be cleaved to generate soluble fragments that retain biologic activity and influence immune signaling pathways. Through interactions with IgE and CD21, CD23 participates in antigen presentation, modulation of IgE synthesis, and regulation of B cell proliferation and differentiation. Subcellular localization is predominantly membranous, often with variable cytoplasmic staining depending on activation state and cellular processing.

In normal tissues, CD23 expression is most prominent in secondary lymphoid organs such as tonsil, lymph node, and spleen. Within these tissues, CD23 is characteristically expressed by follicular B cells in germinal centers and mantle zones, where it contributes to regulation of antibody responses. The staining pattern typically highlights follicular architecture, with strong membranous labeling in B cell rich areas and minimal staining in T cell predominant interfollicular regions. CD23 antibody is widely used in research settings focused on B cell biology, germinal center reactions, and immune regulation.

HuProt validation of clone FCER2/6887 against a comprehensive panel of more than 19,000 human proteins demonstrates preferential binding to FCER2 relative to non-target proteins, supporting high target specificity. CD23 Antibody - HuProt Validated (clone FCER2/6887) is suitable for detecting CD23 expression in research applications involving immunology, allergy mechanisms, and lymphoid tissue studies.

Application Notes

Optimal dilution of the CD23 antibody should be determined by the researcher.

Immunogen

A portion of amino acids 48-321 was used as the immunogen for the CD23 antibody HuProt validated clone FCER2/6887.

Storage

Aliquot the CD23 antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.