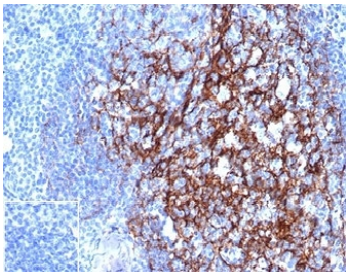
CD23 Antibody Mouse Monoclonal [clone FCER2/4918] (V9464)

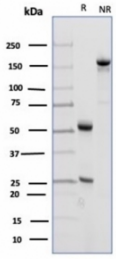
Catalog No.	Formulation	Size
V9464-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V9464-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V9464SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

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	FCER2/4918
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 mouse monoclonal clone FCER2/4918 at 2 ug/ml in PBS for 30 minutes at room temperature. Strong membranous HRP-DAB brown staining is observed in B lymphocytes within germinal centers and mantle zone regions, consistent with established CD23 expression on mature follicular B cells. The staining pattern clearly delineates 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.



SDS-PAGE analysis of purified, BSA-free CD23 antibody (clone FCER2/4918) as confirmation of integrity and purity.

Description

CD23 Antibody Mouse Monoclonal Clone FCER2/4918 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 a central role in regulating IgE mediated immune responses and B cell activation. CD23 is primarily expressed on mature B lymphocytes and certain activated immune cell subsets within secondary lymphoid tissues.

CD23 is composed of a short N-terminal cytoplasmic region, a single transmembrane segment, 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, regulation of IgE synthesis, and modulation of B cell proliferation and differentiation. Subcellular localization is predominantly membranous, often accompanied by variable cytoplasmic staining depending on cellular activation and processing state.

In normal tissues, CD23 expression is most prominent in tonsil, lymph node, and spleen, where it is characteristically expressed by follicular B cells in germinal centers and mantle zones. Immunostaining typically highlights follicular architecture with strong membranous labeling in B cell rich regions and limited staining in T cell predominant interfollicular areas. Because of this distinct expression pattern, CD23 antibody is widely used in research settings focused on B cell biology, germinal center reactions, and immune regulation.

Dysregulated CD23 expression has been associated with allergic diseases and certain B cell lymphoproliferative disorders, including chronic lymphocytic leukemia. CD23 Antibody Mouse Monoclonal Clone FCER2/4918 provides a specific reagent for detecting CD23 in research applications involving immunology, IgE regulation, 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 mouse monoclonal clone FCER2/4918.

Storage

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