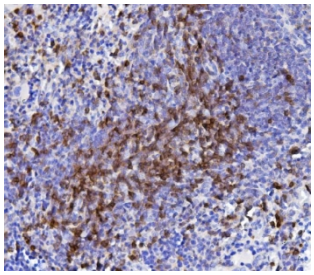
CD5 Antibody 11B4 / Rat Reactive Immune Marker Antibody [clone 11B4] (RQ6376)

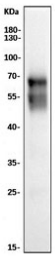
Catalog No.	Formulation	Size
RQ6376	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

Availability	1-3 business days
Species Reactivity	Rat
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG1
Clone Name	11B4
Purity	Antigen affinity purified
Buffer	Lyophilized from 1X PBS with 2% Trehalose
UniProt	Q4KLZ9
Localization	Cell surface
Applications	Western blot: 0.5-1ug/ml Immunohistochemistry (FFPE): 2-5ug/ml
Limitations	This CD5 Antibody 11B4 / Rat Reactive Immune Marker Antibody is available for research use only.



CD5 Antibody 11B4 for IHC. Immunohistochemistry analysis of CD5 antibody (clone 11B4) staining in FFPE rat spleen tissue using a rat reactive immune marker antibody. Strong membranous staining is observed in lymphocyte populations within splenic white pulp regions, highlighting T cell-rich areas and scattered CD5-positive cells throughout the tissue, while surrounding non-lymphoid areas show minimal staining. The staining pattern reflects expected localization of CD5 in rat lymphoid tissue and supports its use for identifying immune cell distribution in spleen. Heat-induced epitope retrieval was performed using pH 8 EDTA buffer for 20 minutes followed by cooling prior to antibody incubation.



CD5 Antibody 11B4 for WB. Western blot analysis of CD5 antibody (clone 11B4) in rat thymus lysate using a rat reactive immune marker antibody. A band is detected at approximately 55-67 kDa, consistent with the predicted molecular weight of CD5, with size variation reflecting known glycosylation of this membrane glycoprotein. The strong signal observed in thymus tissue aligns with the high enrichment of CD5 in developing and mature T lymphocytes within this organ.

Description

CD5 (CD5) is a type I transmembrane glycoprotein belonging to the scavenger receptor cysteine-rich (SRCR) superfamily, localized to the plasma membrane of T lymphocytes and a subset of B cells. CD5 Antibody 11B4 - Rat Reactive Immune Marker Antibody is raised against a rat amino acid sequence, enabling targeted recognition of CD5 in rat-derived samples for both tissue-based and protein-based analysis. CD5 antibody, also known as T cell surface glycoprotein CD5 antibody or LEU1 antibody, is widely used as a defining marker of lymphocyte populations and plays a central role in studies of immune system organization in preclinical rat models.

CD5 is highly expressed during thymocyte development and remains consistently present on mature peripheral T cells, where it functions as a key regulator of antigen receptor signaling. By modulating T cell receptor (TCR) activation thresholds, CD5 contributes to immune tolerance and helps prevent excessive immune responses. Its expression also extends to a subset of B cells, particularly those associated with innate-like immune functions. Because of this tightly regulated and lineage-associated expression pattern, CD5 antibody is commonly used to study lymphocyte identity, immune cell distribution, and activation states. In rat systems, these properties are especially important for investigating immune development, inflammation, and disease progression in controlled experimental settings.

CD5 Antibody raised against a rat sequence provides strong and biologically relevant detection of CD5 in rat tissues, supporting immunohistochemistry analysis of formalin-fixed, paraffin-embedded samples. In IHC applications, CD5 staining produces a distinct membranous pattern in T cell-rich regions such as thymus, lymph node, and spleen, clearly outlining lymphoid architecture and enabling visualization of immune cell localization within tissue compartments. This is particularly valuable in rat models of cancer, autoimmune disease, and inflammatory conditions, where spatial assessment of immune infiltration and lymphocyte distribution is essential for interpreting disease mechanisms.

In western blot applications, CD5 is detected as a glycosylated membrane protein that often migrates at an apparent molecular weight higher than its predicted size due to post-translational modification. CD5 antibody for WB enables detection of this characteristic band in rat tissue lysates, supporting confirmation of protein expression and analysis of immune-related signaling pathways. The ability to assess CD5 at the protein level complements histological findings and allows researchers to evaluate changes in expression under different experimental conditions, including stimulation, disease progression, or therapeutic intervention.

This mouse monoclonal CD5 antibody (clone 11B4) is well suited for research applications involving rat samples, providing consistent detection of CD5 across immunohistochemistry and western blot assays. Its sequence-directed design enhances recognition of rat CD5 and supports reproducible performance in studies requiring reliable identification of lymphocyte-associated proteins.

Given the widespread use of rat models in immunology, oncology, and translational research, CD5 antibody targeting rat CD5 is a valuable tool for studying immune cell composition, lymphoid tissue organization, and disease-associated changes in lymphocyte populations. Its ability to support both tissue-level visualization and protein-level detection makes it particularly useful for integrated experimental approaches aimed at understanding immune system function in vivo.

For additional CD5 research, explore our CD5 Antibody CD5/2416, a mouse monoclonal antibody with HuProt protein microarray specificity validation and supporting Western blot, IHC, and flow cytometry data.

Application Notes

Optimal dilution of the CD5 Antibody 11B4 / Rat Reactive Immune Marker Antibody should be determined by the researcher.

Immunogen

Recombinant rat protein (amino acids Q24-L494) was used as the immunogen for the CD5 antibody.

Storage

After reconstitution, the CD5 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

Alternate Names

rat CD5 antibody, CD5 rat antibody, CD5 rat reactive antibody, CD5 rat IHC antibody, CD5 rat western blot antibody

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