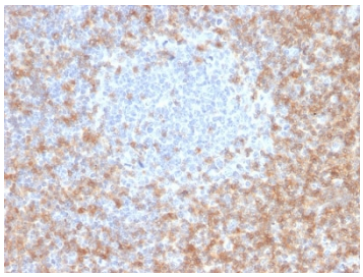
CD5 Antibody Clone CD5/2416 / Protein Microarray Validated Antibody [clone CD5/2416] (V3961)

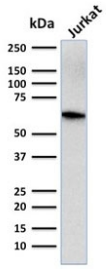
Catalog No.	Formulation	Size
V3961-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V3961-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V3961SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Bulk quote request

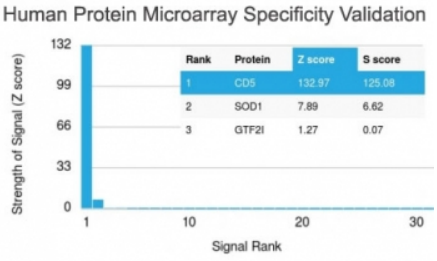
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG2b, kappa
Clone Name	CD5/2416
Purity	Protein G affinity chromatography
UniProt	P06127
Localization	Cell surface
Applications	Flow Cytometry : 1-2ug/10^6 cells Western Blot : 1-2ug/ml Immunofluorescence : 1-2ug/ml Immunohistochemistry (FFPE) : 1-2ug/ml for 30 min at RT
Limitations	This CD5 Antibody Clone CD5/2416 / Protein Microarray Validated Antibody is available for research use only.



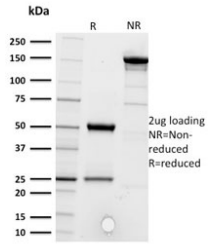
CD5 Antibody Clone CD5/2416. Immunohistochemistry analysis of CD5 antibody staining in FFPE human tonsil tissue using a protein microarray validated antibody. Strong membranous staining is observed in T lymphocytes within interfollicular regions, with dense labeling surrounding germinal centers while follicular B cell areas remain relatively negative. The staining pattern highlights normal tonsillar architecture and supports specific detection of CD5-positive T cell populations, consistent with validation-backed target recognition. Heat-induced epitope retrieval was performed in 10 mM citrate buffer, pH 6, for 10-20 minutes followed by cooling at room temperature prior to antibody incubation.



CD5 Antibody Clone CD5/2416. Western blot analysis of CD5 antibody in human Jurkat cell lysate using a protein microarray validated 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 this T cell-derived lysate aligns with the established enrichment of CD5 in T lymphocytes and supports specificity consistent with protein microarray validation.



CD5 Antibody Clone CD5/2416. Protein microarray specificity analysis using a HuProt microarray containing more than 19,000 full-length human proteins demonstrates highly selective binding of the CD5/2416 monoclonal antibody to CD5. CD5 is identified as the top-ranked target with a strong signal intensity (Z-score ~132.97) and high specificity separation from the next ranked proteins (S-score ~125.08), while all other proteins show minimal signal. The Z-score reflects signal strength relative to the array mean, and the S-score represents the separation between the intended target and the next highest signal, indicating relative specificity. These results support the high specificity of the CD5/2416 antibody for its intended target in proteome-scale screening.



SDS-PAGE analysis of purified, BSA-free CD5 antibody (clone CD5/2416) as confirmation of integrity and purity.

Description

CD5 (CD5) is a type I transmembrane glycoprotein of the scavenger receptor cysteine-rich (SRCR) superfamily, localized to the plasma membrane of T lymphocytes and a subset of B cells. CD5 Antibody Clone CD5/2416 / Protein Microarray Validated Antibody is designed for detection of CD5 with enhanced confidence supported by protein microarray-based specificity evaluation across a broad protein panel. CD5 antibody, also known as T cell surface glycoprotein CD5 antibody or LEU1 antibody, is a well-established marker for identifying lymphocyte populations and plays a central role in studies of immune system organization and function.

CD5 is highly expressed during thymocyte development and remains consistently present on mature peripheral T cells, where it regulates antigen receptor signaling and contributes to immune tolerance. Its expression extends to a subset of B cells, particularly those associated with innate-like immune responses and certain disease states. Because CD5 expression is tightly linked to lymphocyte lineage and activation status, CD5 antibody is widely used to study immune cell distribution, differentiation, and functional responses. Reliable detection of CD5 is therefore essential for accurate interpretation of immune-related data.

Protein microarray validation provides a comprehensive approach to assessing antibody binding by testing interactions across thousands of proteins in a controlled format. CD5 antibody clone CD5/2416 has undergone protein microarray-based evaluation, supporting its ability to recognize CD5 while minimizing unintended interactions with off-target proteins. This type of validation is particularly valuable in experiments involving complex lysates, closely related protein families, or high-throughput screening, where non-specific binding can lead to misleading results. By incorporating protein microarray validation, this antibody offers an added layer of confidence in target specificity and experimental reproducibility.

In practical use, CD5 antibody clone CD5/2416 enables consistent detection of CD5 across lymphocyte-derived samples, including T cell-rich tissues and immune cell lines. Its validation-supported specificity makes it well suited for studies examining immune signaling pathways, lymphocyte composition, and disease-associated changes in protein expression. The ability to rely on microarray-backed specificity is particularly important in comparative studies where subtle differences in expression must be accurately resolved.

This mouse monoclonal antibody clone CD5/2416 is suitable for research applications requiring robust and well-characterized target recognition. Its combination of established CD5 biology and protein microarray validation supports dependable performance across a range of experimental systems. Researchers benefit from increased confidence in antibody binding, especially in studies involving complex biological samples or multiplexed analyses.

Because CD5 is a key marker of T cell identity and immune regulation, CD5 antibody clone CD5/2416 is widely used in studies of immune system function, lymphoid tissue organization, and hematologic disease. The integration of protein microarray validation strengthens its role as a reliable tool for detecting CD5 in experiments where specificity and reproducibility are critical for meaningful biological interpretation.

A full range of CD5 antibody reagents for immunohistochemistry, western blot, and flow cytometry is available on our CD5 Antibody collection page.

Application Notes

The optimal dilution of the CD5 Antibody Clone CD5/2416 / Protein Microarray Validated Antibody for each application should be determined by the researcher.

Immunogen

A portion of amino acids 269-366 from the human protein was used as the immunogen for this CD5 antibody.

Storage

Store the CD5 antibody at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).

Alternate Names

CD5 clone CD5/2416 antibody, CD5 2416 antibody, CD5 protein microarray validated antibody, CD5 monoclonal antibody 2416, CD5 specificity antibody