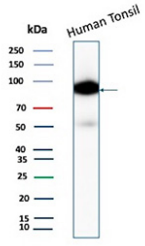
CD19 Molecule Antibody [clone CD19/4260R] (V6034)

Catalog No.	Formulation	Size
V6034-100UG	0.2 mg/ml in 1X PBS with 0.05% BSA, 0.05% sodium azide	100 ug
V6034-20UG	0.2 mg/ml in 1X PBS with 0.05% BSA, 0.05% sodium azide	20 ug
V6034SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

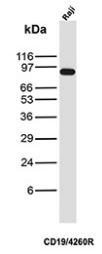
Recombinant RABBIT MONOCLONAL

Bulk quote request

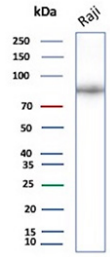
Species Reactivity	Human
Format	Purified
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG, kappa
Clone Name	CD19/4260R
UniProt	P15391
Localization	Cell surface
Applications	Immunohistochemistry (FFPE) : 1-2ug/ml Western Blot : 2-4ug/ml
Limitations	This CD19/CD19 molecule antibody is available for research use only.



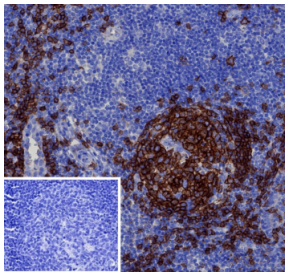
Western blot analysis of CD19/CD19 molecule antibody in human tonsil tissue lysate. A strong band is detected at approximately 95 kDa, consistent with the predicted molecular weight of CD19 (Cluster of Differentiation 19), a glycosylated B cell surface receptor. The observed band migrates slightly above the core protein size, which is expected due to N-linked glycosylation of CD19. Blot was probed with CD19/CD19 molecule antibody (clone CD19/4260R).



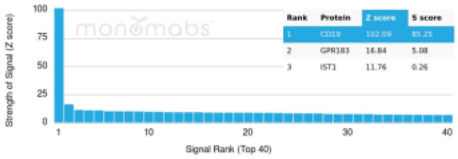
Western blot analysis of CD19/CD19 molecule antibody in human Raji cell lysate. A prominent band is detected at approximately 95 kDa, consistent with the predicted molecular weight of CD19 (Cluster of Differentiation 19), a glycosylated B cell surface receptor expressed in B cell lines such as Raji. The apparent molecular weight above the core protein size reflects known N-linked glycosylation of CD19. Blot was probed with CD19/CD19 molecule antibody (clone CD19/4260R).



Western blot analysis of CD19/CD19 molecule antibody in human Raji cell lysate. A distinct band is detected at approximately 90-95 kDa, consistent with the predicted molecular weight of CD19 (Cluster of Differentiation 19). The slightly diffuse migration pattern is expected, as CD19 is a glycosylated B cell surface receptor and N-linked glycosylation contributes to an increased apparent molecular weight on SDS-PAGE. Blot was probed with CD19/CD19 molecule antibody (clone CD19/4260R7).

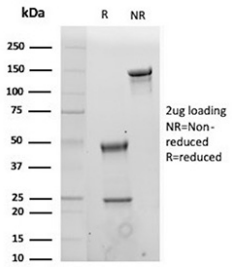


Immunohistochemistry analysis of CD19/CD19 molecule antibody in human tonsil tissue. FFPE human tonsil demonstrates strong membranous HRP-DAB brown staining in B lymphocytes within germinal centers, consistent with CD19 (Cluster of Differentiation 19) expression on mature B cells, while surrounding interfollicular T cell-rich areas show minimal staining. The inset image using PBS in place of primary antibody as a secondary-only negative control shows absence of specific signal. Antigen retrieval was performed by heating tissue sections in 10mM Tris with 1mM EDTA, pH 9.0, at 95oC for 45 minutes followed by cooling at room temperature for 20 minutes prior to incubation with CD19/CD19 molecule antibody (clone CD19/4260R).



Protein microarray specificity analysis of CD19/CD19 molecule antibody using a HuProt full-length human protein array containing more than 19,000 recombinant human proteins. CD19 Recombinant Rabbit Monoclonal Antibody (clone CD19/4260R) demonstrates the strongest signal for CD19 with a Z-score of 102.09 and an S-score of 85.25, indicating high affinity and target specificity. The next highest ranked proteins, including GPR183 and IST1, show substantially lower Z- and S-scores, supporting selective binding to CD19.

The Z-score represents the strength of the fluorescent signal generated when the monoclonal antibody, in combination with a fluorescently labeled anti-IgG secondary antibody, binds to a protein on the HuProt array. Z-scores are expressed as standard deviations above the mean signal of all proteins on the array. When targets are ranked in descending order by Z-score, the S-score represents the difference in standard deviations between the top-ranked target and the next highest binding protein. An S-score of at least 2.5 is generally considered indicative of target specificity. The high S-score observed for CD19 relative to other proteins confirms strong specificity of CD19/CD19 molecule antibody (clone CD19/4260R) for its intended target.



SDS-PAGE Analysis of Purified CD19/CD19 molecule antibody (clone CD19/4260R). Confirmation of Purity and Integrity of Antibody.

Description

CD19 Molecule antibody recognizes CD19, a B cell-specific type I transmembrane glycoprotein that functions as a central coreceptor in B cell receptor signaling. CD19 Molecule Antibody (Clone CD19/4260R) is engineered to detect CD19 with high specificity in research applications requiring consistent performance. CD19 is a member of the immunoglobulin superfamily and is expressed from early pro-B cell stages through mature peripheral B lymphocytes, where it localizes to the plasma membrane. By forming a signaling complex with CD21 and CD81, CD19 amplifies antigen receptor-mediated signaling and lowers the activation threshold of B cells.

The CD19 gene is located on chromosome 16p11.2 and encodes a protein containing two extracellular immunoglobulin-like domains, a single transmembrane region, and a cytoplasmic tail enriched in tyrosine residues that become phosphorylated following activation. These phosphorylation events recruit signaling molecules such as PI3K and adaptor proteins, driving downstream pathways that regulate B cell proliferation, differentiation, and survival. CD19 Molecule Antibody | Clone CD19/4260R supports investigations into normal B cell development as well as dysregulated signaling associated with immune disorders and hematologic malignancies.

In normal human tissues, CD19 expression is restricted to B lineage cells within bone marrow, lymph node, tonsil, and spleen. Terminally differentiated plasma cells typically exhibit reduced or absent CD19 expression, reflecting late-stage B cell maturation. Because of its lineage specificity and stable membrane localization, CD19 serves as a reliable pan-B cell marker in immunologic and translational research settings.

Aberrant CD19 expression is characteristic of most B cell malignancies, including B cell acute lymphoblastic leukemia, chronic lymphocytic leukemia, and multiple forms of non-Hodgkin lymphoma. CD19 has also emerged as a major therapeutic target in immunotherapy strategies such as chimeric antigen receptor T cell approaches. Accurate detection of CD19 is therefore critical for studies of tumor biology, immune targeting, and therapeutic development.

Clone CD19/4260R is a recombinant rabbit monoclonal antibody designed to provide defined sequence identity and lot-to-lot reproducibility. Recombinant expression supports consistent binding characteristics and reliable detection of membrane-associated CD19 in research applications. CD19 Molecule Antibody (Clone CD19/4260R) provides strong membranous staining in CD19-positive B cells with minimal background in non-B cell populations.

Application Notes

1. Optimal dilution of the CD19/CD19 molecule antibody should be determined by the researcher.

2. This CD19/CD19 molecule antibody is recombinantly produced by expression in CHO cells.

Immunogen

A recombinant fragment of human CD19 protein (around amino acids 300-556) (exact sequence is proprietary) was used as the immuongen for the CD19/CD19 molecule antibody.

Storage

CD19/CD19 molecule antibody with sodium azide - store at 2 to 8oC; antibody without sodium azide - store at -20 to -80oC.