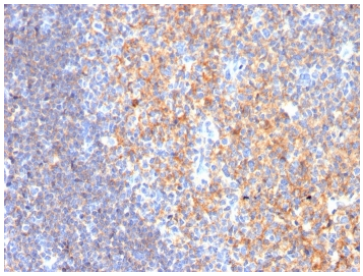
CD19 Antibody Mouse Monoclonal [clone CD19/3116] (V8224)

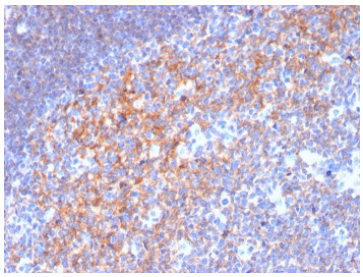
Catalog No.	Formulation	Size
V8224-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V8224-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V8224SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Bulk quote request

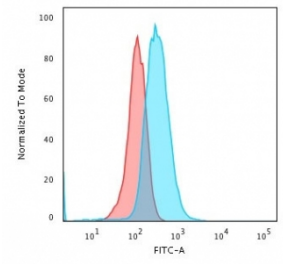
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG1, kappa
Clone Name	CD19/3116
Purity	Protein G affinity chromatography
UniProt	P15391
Localization	Cell surface, cytoplasmic
Applications	ELISA (order BSA-free Format For Coating) : Flow Cytometry : 1-2ug/10^6 cells in 0.1ml Immunohistochemistry (FFPE) : 1-2ug/ml
Limitations	This CD19 antibody is available for research use only.



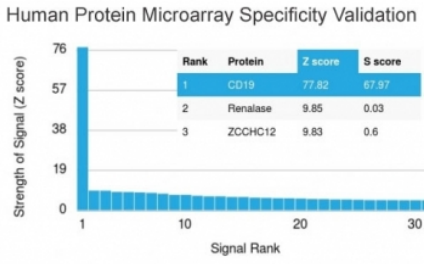
Immunohistochemistry analysis of CD19 Antibody Mouse Monoclonal in human tonsil tissue. FFPE human tonsil demonstrates strong membranous HRP-DAB brown staining in B lymphocytes within germinal centers and follicular regions, consistent with CD19 (Cluster of Differentiation 19) expression on mature B cells, while interfollicular T cell-rich areas show reduced staining. Antigen retrieval was performed by boiling tissue sections in 10mM Tris with 1mM EDTA, pH 9.0, for 10-20 minutes followed by cooling prior to incubation with CD19 antibody (clone CD19/3116).



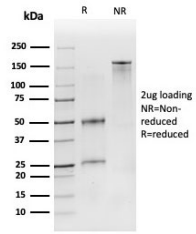
IHC staining of FFPE human tonsil with CD19 antibody (clone CD19/3116). HIER: boil tissue sections in pH 9 10mM Tris with 1mM EDTA for 10-20 min and allow to cool before testing.



Flow cytometry testing of human Raji cells with CD19 antibody (clone CD19/3116); Red=isotype control, Blue= CD19 antibody.



Analysis of HuProt(TM) microarray containing more than 19,000 full-length human proteins using CD19 antibody (clone CD19/3116). These results demonstrate the foremost specificity of the CD19/3116 mAb.
Z- and S- score: The Z-score represents the strength of a signal that an antibody (in combination with a fluorescently-tagged anti-IgG secondary Ab) produces when binding to a particular protein on the HuProt(TM) array. Z-scores are described in units of standard deviations (SD's) above the mean value of all signals generated on that array. If the targets on the HuProt(TM) are arranged in descending order of the Z-score, the S-score is the difference (also in units of SD's) between the Z-scores. The S-score therefore represents the relative target specificity of an Ab to its intended target.



SDS-PAGE analysis of purified, BSA-free CD19 antibody (clone CD19/3116) as confirmation of integrity and purity.

Description

CD19 antibody recognizes CD19, a B cell-specific type I transmembrane glycoprotein that functions as a central coreceptor in B cell receptor signaling. CD19 Antibody Mouse Monoclonal | Clone CD19/3116 is developed for reliable detection of CD19 in research applications requiring specific identification of B lineage cells. 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 upon activation. These phosphorylation events recruit signaling molecules such as PI3K and other adaptor proteins, driving downstream pathways that regulate B cell proliferation, differentiation, and survival. CD19 Antibody Mouse Monoclonal | Clone CD19/3116 supports investigations into normal B cell development and dysregulated signaling associated with immune disorders and hematologic malignancies.

In normal tissues, CD19 expression is restricted to B lineage cells within bone marrow, lymph node, tonsil, and spleen. Plasma cells typically exhibit reduced or absent CD19 expression, reflecting terminal differentiation. Because of its lineage specificity and stable surface expression, CD19 serves as a reliable pan-B cell marker in immunologic and translational research settings.

Aberrant CD19 expression characterizes most B cell malignancies, including B cell acute lymphoblastic leukemia, chronic lymphocytic leukemia, and multiple forms of non-Hodgkin lymphoma. CD19 is also 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 treatment response.

Clone CD19/3116 is a mouse monoclonal antibody designed to provide specific and consistent detection of CD19 protein. As a monoclonal reagent, it recognizes a single epitope, supporting reproducible staining patterns and minimal background. CD19 Antibody Mouse Monoclonal | Clone CD19/3116 offers dependable performance for researchers investigating B cell distribution, immune regulation, and B cell-driven disease processes.

Application Notes

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

Immunogen

A recombinant human partial protein (amino acids 96-281) was used as the immunogen for the CD19 antibody.

Storage

Store the CD19 antibody at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).