

PRODUCT INFORMATION



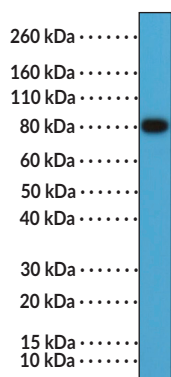
CD19 (C-Term) Rabbit Monoclonal Antibody (Clone RM332)

Item No. 32269

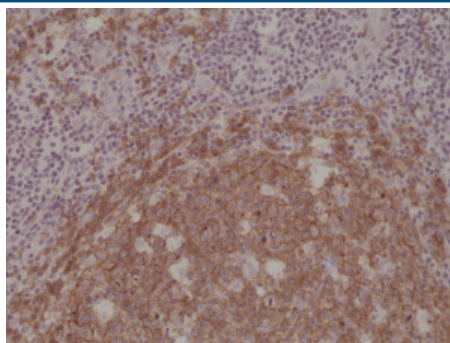
Overview and Properties

Contents:	This vial contains 100 µl of protein A-affinity purified monoclonal antibody.
Synonym:	Cluster of Differentiation 19
Immunogen:	Peptide from the C-terminal region of human CD19
Cross Reactivity:	(+) CD19
Species Reactivity:	(+) Human
Form:	Liquid
Storage:	-20°C (as supplied)
Stability:	≥1 year
Storage Buffer:	PBS with 50% glycerol, 1% BSA, and 0.09% sodium azide
Clone:	RM332
Host:	Rabbit
Isotype:	IgG
Applications:	Immunohistochemistry (IHC) and Western blot (WB); the recommended starting dilution is 1:500-1:1,000 for IHC and 1:1,000-1:2,000 for WB. Other applications were not tested, therefore optimal working concentration/dilution should be determined empirically.

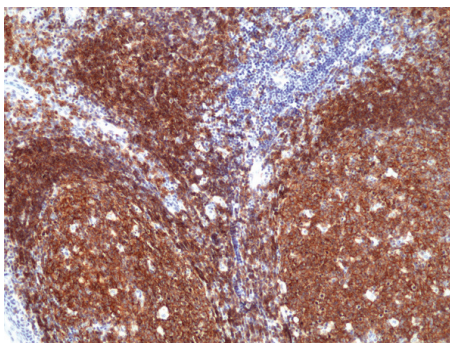
Images



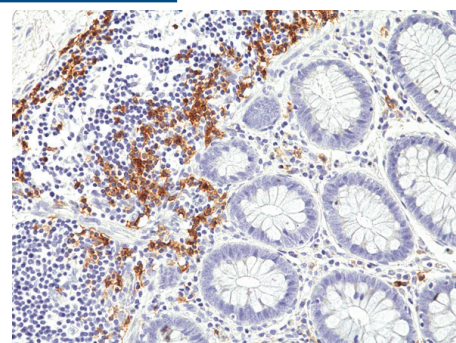
WB of Raji cell lysate using CD19 (C-Term) Rabbit Monoclonal Antibody (Clone RM332) at a dilution of 1:1,000.



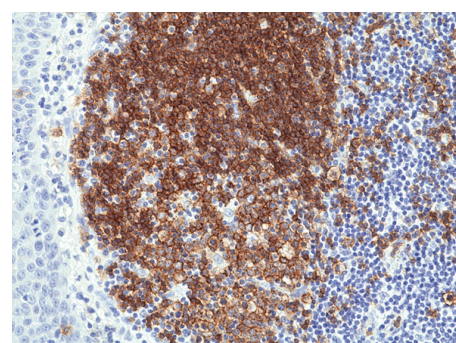
Immunohistochemical staining of formalin-fixed and paraffin-embedded human tonsil tissue using CD19 (C-Term) Rabbit Monoclonal Antibody (Clone RM332) at a dilution of 1:1,000.



Immunohistochemical staining of formalin-fixed and paraffin-embedded human tonsil tissue using CD19 (C-Term) Rabbit Monoclonal Antibody (Clone RM332) at a dilution of 1:1,000.



Immunohistochemical staining of formalin-fixed and paraffin-embedded human colon tissue using CD19 (C-Term) Rabbit Monoclonal Antibody (Clone RM332) at a dilution of 1:1,000.



Immunohistochemical staining of formalin-fixed and paraffin-embedded human tonsil tissue using CD19 (C-Term) Rabbit Monoclonal Antibody (Clone RM332) at a dilution of 1:1,000.

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY
Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

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Description

CD19 is a type I transmembrane protein and member of the immunoglobulin superfamily that functions as a B cell receptor (BCR) co-receptor.^{1,2} It is composed of an extracellular N-terminal domain containing two C2-type immunoglobulin-like (Ig-like) domains and several glycosylation sites, a transmembrane domain, and a C-terminal cytoplasmic domain containing nine tyrosine residues, which are subject to phosphorylation and mediate intracellular signaling. It is expressed on the surface of, and used as a marker for, B cells, and its expression increases during B cell maturation but decreases upon plasma cell differentiation.¹⁻³ CD19 has important roles in B cell proliferation, differentiation, and survival.¹ It associates with CD21, also known as complement receptor 2 (CR2), as well as CD82 and Leu-13, forming a multimeric complex that enhances BCR signaling.^{1,2} CD19 functions as an adaptor protein, recruiting various cytoplasmic signaling proteins to the cell membrane that activate numerous intracellular signaling pathways, including PI3K, MAPK, and NF- κ B.^{1,2,4} CD19 protein levels are increased in tumor cells isolated from patients with a variety of cancers of B cell origin, including chronic myelocytic leukemia and B cell lymphomas, and decreased in B cells isolated from patients with systemic lupus erythematosus (SLE).¹⁻⁵ Cayman's CD19 (C-Term) Rabbit Monoclonal Antibody (Clone RM332) can be used for immunohistochemistry (IHC) and Western blot (WB) applications.

References

1. Li, X., Ding, Y., Zi, M., *et al.* CD19, from bench to bedside. *Immunol. Lett.* **183**, 86-95 (2017).
2. Wang, K., Wei, G., and Liu, D. CD19: A biomarker for B cell development, lymphoma diagnosis and therapy. *Exp. Hematol. Oncol.* **1(1)**, 36 (2012).
3. Poe, J.C., Minard-Colin, V., Kountikov, E.I., *et al.* A c-Myc and surface CD19 signaling amplification loop promotes B cell lymphoma development and progression in mice. *J. Immunol.* **89(5)**, 2318-2325 (2012).
4. Haas, K.M. and Tedder, T.F. Role of the CD19 and CD21/35 receptor complex in innate immunity, host defense and autoimmunity. *Mechanisms of lymphocyte activation and immune regulation* X. Gupta, S., Paul, W.E., and Steinman, R., editors, *Springer* (2005).
5. Anderson, K.C., Bates, M.P., Slaughenhaupt, B.L., *et al.* Expression of human B cell-associated antigens on leukemias and lymphomas: A model of human B cell differentiation. *Blood* **63(6)**, 1424-1433 (1984).

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