

CD20 Antibody

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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W, IF-F	M	Endogenous	30-50	Rabbit	#P19437	12482

Product Usage Information**Application**

Western Blotting
Immunofluorescence (Frozen)

Dilution

1:1000
1:50

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at -20°C. *Do not aliquot the antibody.*

Specificity/Sensitivity

CD20 Antibody recognizes endogenous levels of total CD20 protein.

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues near the carboxy terminus of mouse CD20 protein. Antibodies are purified by protein A and peptide affinity chromatography.

Background

B-lymphocyte antigen CD20 (also known as MS4A1; Membrane-spanning 4-domains subfamily A member 1) is a cell surface phosphoprotein involved in the regulation of B cell activation and proliferation (1,2). It is commonly used as a marker to identify B cells and is expressed throughout B cell development, up until their differentiation into plasma cells. CD20 has no known ligand, and its expression and function are largely conserved between human and mouse (1-3). Evidence suggests that CD20 is necessary for store operated calcium (SOC) entry, which leads to elevated cytoplasmic calcium levels required for B cell activation (4,5). Anti-CD20 antibody immunotherapy depletes B cells by activation of the innate monocytic network and is a common treatment for B cell lymphomas, leukemias, and autoimmune diseases (6).

Background References

1. Stashenko, P. et al. (1980) *J Immunol* 125, 1678-85.
2. Tedder, T.F. et al. (1985) *J Immunol* 135, 973-9.
3. Tedder, T.F. et al. (1988) *J Immunol* 141, 4388-94.
4. Bubien, J.K. et al. (1993) *J Cell Biol* 121, 1121-32.
5. Li, H. et al. (2003) *J Biol Chem* 278, 42427-34.
6. Uchida, J. et al. (2004) *J Exp Med* 199, 1659-69.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting **IF-F:** Immunofluorescence (Frozen)

Cross-Reactivity Key

M: Mouse

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