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CD20 (2H7) Mouse mAb (APC Conjugate)

For Research Use Only. Not for Use in Diagnostic Procedures.

Applications: FC-FP, FC-L	Reactivity: H	Sensitivity: Endogenous	Source/Isotype: Mouse IgG2b kappa	UniProt ID: #P11836	Entrez-Gene Id: 931
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Product Usage Information	Application Flow Cytometry (Fixed/Permeabilized) Flow Cytometry (Live)	Dilution 1:20 1:20
Storage	Supplied in 10 mM NaH ₂ PO ₄ , 150 mM NaCl, 0.09% NaN ₃ , 0.1% gelatin, pH 7.2. This product is stable for 12 months when stored at 4°C. Do not aliquot the antibody. Protect from light. Do not freeze.	
Specificity/Sensitivity	CD20 (2H7) Mouse mAb (APC Conjugate) recognizes endogenous levels of total CD20 protein. This antibody detects an epitope within the extracellular domain.	
Source / Purification	This monoclonal antibody was purified from tissue culture supernatant via affinity chromatography. The purified antibody was conjugated under optimal conditions, with unreacted dye removed from the preparation.	
Description	This Cell Signaling Technology antibody is conjugated to APC and tested in-house for direct flow cytometric analysis in human cells.	
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). The 2H7 antibody is widely used to identify both normal and malignant B cells (7).	
Background References	<ol style="list-style-type: none"> 1. Stashenko, P. et al. (1980) <i>J Immunol</i> 125, 1678-85. 2. Tedder, T.F. et al. (1985) <i>J Immunol</i> 135, 973-9. 3. Tedder, T.F. et al. (1988) <i>J Immunol</i> 141, 4388-94. 4. Bubien, J.K. et al. (1993) <i>J Cell Biol</i> 121, 1121-32. 5. Li, H. et al. (2003) <i>J Biol Chem</i> 278, 42427-34. 6. Uchida, J. et al. (2004) <i>J Exp Med</i> 199, 1659-69. 7. Liu, A.Y. et al. (1987) <i>J Immunol</i> 139, 3521-6. 	
Species Reactivity	Species reactivity is determined by testing in at least one approved application (e.g., western blot).	
Applications Key	FC-FP: Flow Cytometry (Fixed/Permeabilized) FC-L: Flow Cytometry (Live)	
Cross-Reactivity Key	H: Human	
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