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## CD20 (2H7) Mouse mAb (PE-Cy7<sup>®</sup> Conjugate)

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

Applications:	Reactivity:	Sensitivity:	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
FC-FP, FC-L	H	Endogenous	Mouse IgG2b kappa	#P11836	931
<b>Product Usage Information</b>	<b>Application</b>				<b>Dilution</b>
	Flow Cytometry (Fixed/Permeabilized)				1:20
	Flow Cytometry (Live)				1:20
<b>Storage</b>	Supplied in 10 mM NaH <sub>2</sub> PO <sub>4</sub> , 150 mM NaCl, 0.09% NaN <sub>3</sub> , 0.1% gelatin, pH 7.2. This product is stable for 6 months when stored at 4°C. Do not aliquot the antibody. Protect from light. Do not freeze.				
<b>Specificity/Sensitivity</b>	CD20 (2H7) Mouse mAb (PE-Cy7 <sup>®</sup> Conjugate) recognizes endogenous levels of total CD20 protein. This antibody detects an epitope within the extracellular domain.				
<b>Source / Purification</b>	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				
<b>Description</b>	This Cell Signaling Technology antibody is conjugated to PE-Cy7 <sup>®</sup> and tested in-house for direct flow cytometric analysis in human cells.				
<b>Background</b>	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).				
<b>Background References</b>	<ol style="list-style-type: none"> <li>1. Stashenko, P. et al. (1980) <i>J Immunol</i> 125, 1678-85.</li> <li>2. Tedder, T.F. et al. (1985) <i>J Immunol</i> 135, 973-9.</li> <li>3. Tedder, T.F. et al. (1988) <i>J Immunol</i> 141, 4388-94.</li> <li>4. Bubien, J.K. et al. (1993) <i>J Cell Biol</i> 121, 1121-32.</li> <li>5. Li, H. et al. (2003) <i>J Biol Chem</i> 278, 42427-34.</li> <li>6. Uchida, J. et al. (2004) <i>J Exp Med</i> 199, 1659-69.</li> <li>7. Liu, A.Y. et al. (1987) <i>J Immunol</i> 139, 3521-6.</li> </ol>				

**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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