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CD20 (2H7) Mouse mAb (FITC Conjugate)

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

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|-------------------------------------|-------------------------|-----------------------------------|---|-------------------------------|-------------------------------|
| 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 | Dilution |
|--------------------------------|--|----------|
| | Flow Cytometry (Fixed/Permeabilized) | 1:20 |
| | Flow Cytometry (Live) | 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 (FITC 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 FITC 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. | |

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| 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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