

Store at
4°C

CD20 (2H7) Mouse mAb (redFluor™ 710 Conjugate)

#38268

Support: +1-978-867-2388 (U.S.)
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orders@cellsignal.comEntrez-Gene ID #931
UniProt ID #P11836

New 04/19

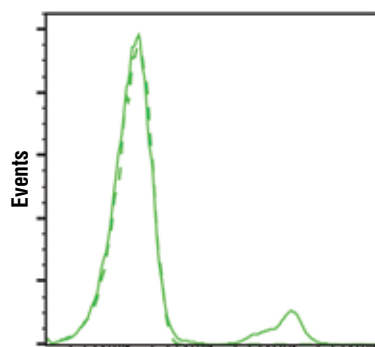
For Research Use Only. Not For Use In Diagnostic Procedures.**Applications**
F
Endogenous**Species Cross-Reactivity**
H**Isotype**
Mouse IgG2b

Description: This Cell Signaling Technology antibody is conjugated to redFluor™ 710 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).

Specificity/Sensitivity: CD20 (2H7) Mouse mAb (redFluor™ 710 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.



CD20 (2H7) (redFluor™ 710 Conjugate)

Flow cytometric analysis of live human peripheral blood mononuclear cells using CD20 (2H7) Mouse mAb (redFluor™ 710 Conjugate) (solid line) compared to concentration-matched Mouse Isotype Control (redFluor™ 710 Conjugate) (dashed line).

Storage: Supplied in 10 mM NaH₂PO₄, 150 mM NaCl, 0.09% Na₂S₂O₃, 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.

Recommended Antibody Dilutions:

Flow Cytometry 1:20

For product specific protocols and a complete listing of recommended companion products please see the product web page at www.cellsignal.com.

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.
- (7) Liu, A.Y. et al. (1987) *J Immunol* 139, 3521-6.

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Applications: W—Western IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA-Peptide **Species Cross-Reactivity:** H—human M—mouse R—rat Hm—hamster Mk—monkey Mi—mink C—chicken Dm—D. melanogaster X—Xenopus Z—zebrafish B—bovine Dg—dog Pg—pig Sc—S. cerevisiae Ce—C. elegans Hr—Horse All—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.