Anti-Human CD20 Antibody, Clone 2H7

Antibodies

Mouse monoclonal IgG2b antibody against human, rhesus, cynomolgus CD20, unconjugated

Catalog #60008

100 µg 0.5 mg/mL

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Product Description

Antibody 2H7 reacts with CD20, an ~35 kDa non-glycosylated type 1 transmembrane protein in the MS4A protein family. The CD20 polypeptide transverses the cell membrane four times, with only a minor portion of the protein displayed on the cell surface. The epitope recognized by antibody 2H7 has been mapped to the amino acid sequence YNCEPANPSEKNSPST, located in the large extracellular loop of CD20. CD20 is expressed on pre-B cells, resting and activated B cells, some follicular dendritic cells, and a subset of T cells. Expression by B cells is lost upon their differentiation into plasma cells. By associating with several proteins, including the B cell receptor (CD79), MHC class I and II, CD53, CD81, and CD82, CD20 is involved in initiating intracellular signaling pathways that modulate the activation, proliferation, and differentiation of B cells. It is thought that CD20 forms multi-subunit ion channels that regulate calcium ion flux across the plasma membrane. Activation of CD20 is accompanied by pronounced phosphorylation of the cytoplasmic domain of the ~33 kDa apo-protein, with the appearance of 35 - 37 kDa isoforms that associate with Src family kinases such as Fyn, Lck, and Lyn.

Target Antigen Name:	CD20
Alternative Names:	B-lymphocyte antigen, B1, Bp35, Leu-16, MS4A1
Gene ID:	931
Species Reactivity:	Human, Rhesus, Cynomolgus, Baboon, Chimpanzee, Capuchin Monkey, Nancy Ma's Night Monkey, Pigtailed Macaque, Squirrel Monkey
Host Species:	Mouse
Clonality:	Monoclonal
Clone:	2H7
Isotype:	IgG2b, kappa
Immunogen:	Human tonsillar B cells
Conjugate:	Unconjugated

Applications

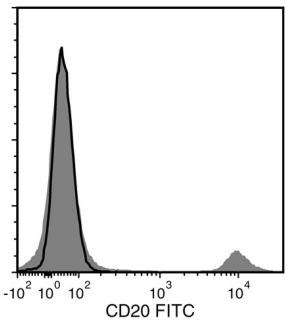
Verified:	FC
Reported:	CyTOF®, ELISA, FC, IHC, IP
Special Applications:	This antibody clone has been verified for purity assessments of cells isolated with EasySep™ kits, including EasySep™ Human Whole Blood CD20 Positive Selection Kit (Catalog #18685), EasySep™ Human CD19 Positive Selection Kit II (Catalog #17854), and EasySep™ HLA Whole Blood Lymphoid Positive Selection Kit (Catalog #18684HLA).

Abbreviations: CellSep: Cell separation; ChIP: Chromatin immunoprecipitation; FA: Functional assay; FACS: Fluorescence-activated cell sorting; FC: Flow cytometry; ICC: Immunocytochemistry; IF: Immunofluorescence microscopy; IHC: Immunohistochemistry; IP: Immunoprecipitation; RIA: Radioimmunoassay; WB: Western blotting

Properties

Formulation:	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide
Purification:	The antibody was purified by affinity chromatography.
Stability and Storage:	Product stable at 2 - 8°C when stored undiluted. Do not freeze. For product expiry date, please contact techsupport@stemcell.com.
Directions for Use:	For flow cytometry, the suggested use of this antibody is ≤ 2 µg per 1 x 10^6 cells in 100 µL. It is recommended that the antibody be titrated for optimal performance for each application.

Data



Flow cytometry analysis of human peripheral blood mononuclear cells (PBMCs) labeled with Anti-Human CD20 Antibody, Clone 2H7, followed by Goat Anti-Mouse IgG (H+L) Antibody, Polyclonal, FITC (Catalog #60138FI) (filled histogram), or Mouse IgG2b, kappa Isotype Control Antibody, Clone MPC-11 (Catalog #60072), followed by Goat Anti-Mouse IgG (H+L) Antibody, Polyclonal, FITC (solid line histogram).

Related Products

For a complete list of antibodies, including other conjugates, sizes and clones, as well as related products available from STEMCELL Technologies, please visit our website at www.stemcell.com/antibodies or contact us at techsupport@stemcell.com.

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