



1B-638-C025

Monoclonal Antibody to CD20 Biotin conjugated (0.025 mg)

Clone:	2H7
Isotype:	Mouse IgG2b
Specificity:	The mouse monoclonal antibody 2H7 recognizes CD20 (B1, Bp35), a 33-37 kDa non-glycosylated membrane receptor with four transmembrane domains, expressed on pre-B lymphocytes, resting and activated B cells (not plasma cells), follicular dendritic cells, and at low levels on peripheral blood T lymphocytes. HLDA IV; WS Code B201
Regulatory Status:	RUO
Immunogen:	Human tonsillar B cells
Species Reactivity:	Human, Non-Human Primates
Preparation:	The purified antibody is conjugated with Biotin-LC-NHS under optimum conditions. The reagent is free of unconjugated biotin.
Concentration:	1 mg/ml
Storage Buffer:	Phosphate buffered saline (PBS) with 15 mM sodium azide, approx. pH 7.4
Storage / Stability:	Store at 2-8°C. Do not freeze. Do not use after expiration date stamped on vial label.
Usage:	Biotinylated antibody is designed for indirect immunofluorescence analysis by Flow Cytometry.
Expiration:	See vial label
Lot Number:	See vial label
Background:	CD20 is a cell surface 33-37 (depending on the degree of phosphorylation) kDa non-glycosylated surface phosphoprotein expressed on mature and most malignant B cells, but not stem cells or plasma cells (low number of the CD20 has been also detected on a subpopulation of T lymphocytes and it can be expressed on follicular dendritic cells). Its expression on B cells is synchronous with the expression of surface IgM. CD20 regulates transmembrane calcium conductance (probably functioning as a component of store-operated calcium channel), cell cycle progression and B-cell proliferation. It is associated with lipid rafts, but the intensity of this association depends on extracellular triggering, employing CD20 conformational change and/or BCR (B cell antigen receptor) aggregation. After the receptor ligation, BCR and CD20 colocalize and then rapidly dissociate before BCR endocytosis, whereas CD20 remains at the cell surface. CD20 serves as a useful target for antibody-mediated therapeutic depletion of B cells, as it is expressed at high levels on most B-cell malignancies, but does not become internalized or shed from the plasma membrane following mAb treatment.

For laboratory research only, not for drug, diagnostic or other use.

**Antibodies****References:**

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- *Polyak MJ, Ayer LM, Szczepek AJ, Deans JP: A cholesterol-dependent CD20 epitope detected by the FMC7 antibody. *Leukemia.* 2003 Jul;17(7):1384-9.
- *And many other.

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