



T7-638-T025

## Monoclonal Antibody to CD20 PE-Cy™7 conjugated (25 tests)

<b>Clone:</b>	2H7
<b>Isotype:</b>	Mouse IgG2b
<b>Specificity:</b>	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
<b>Regulatory Status:</b>	RUO
<b>Immunogen:</b>	Human tonsillar B cells
<b>Species Reactivity:</b>	Human, Non-Human Primates
<b>Preparation:</b>	The purified antibody is conjugated with tandem dye PE-Cy™7 under optimum conditions. The conjugate is purified by size-exclusion chromatography and adjusted for direct use. No reconstitution is necessary.
<b>Storage Buffer:</b>	The reagent is provided in stabilizing phosphate buffered saline (PBS) solution containing 15mM sodium azide.
<b>Storage / Stability:</b>	Store in the dark at 2-8°C. Do not freeze. Avoid prolonged exposure to light. Do not use after expiration date stamped on vial label.
<b>Usage:</b>	The reagent is designed for Flow Cytometry analysis of human blood cells using 4 µl reagent / 100 µl of whole blood or 10 <sup>6</sup> cells in a suspension. The content of a vial (0.1 ml) is sufficient for 25 tests.
<b>Expiration:</b>	See vial label
<b>Lot Number:</b>	See vial label
<b>Background:</b>	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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- \*Deans JP, Kalt L, Ledbetter JA, Schieven GL, Bolen JB, Johnson P: Association of 75/80-kDa phosphoproteins and the tyrosine kinases Lyn, Fyn, and Lck with the B cell molecule CD20. Evidence against involvement of the cytoplasmic regions of CD20. *J Biol Chem.* 1995 Sep 22;270(38):22632-8.
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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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