EXBIO Antibodies

PRODUCT DATA SHEET

1F-638-T025

Monoclonal Antibody to CD20 Fluorescein (FITC) conjugated (25 tests)

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 Fluorescein isothiocyanate (FITC) under optimum conditions. The reagent is free of unconjugated FITC and adjusted for direct use. No reconstitution is necessary.

Storage Buffer: The reagent is provided in stabilizing phosphate buffered saline (PBS) solution containing 15mM sodium azide.

Storage / Stability: 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.

Usage: The reagent is designed for Flow Cytometry analysis of human blood cells using 20 µl reagent / 100 µl of whole blood or 10^6 cells in a suspension.
The content of a vial (0.5 ml) is sufficient for 25 tests.

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.

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