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Product datasheet for SM3140B

CD20 (MS4A1) Mouse Monoclonal Antibody [Clone ID: LT20]

Product data:

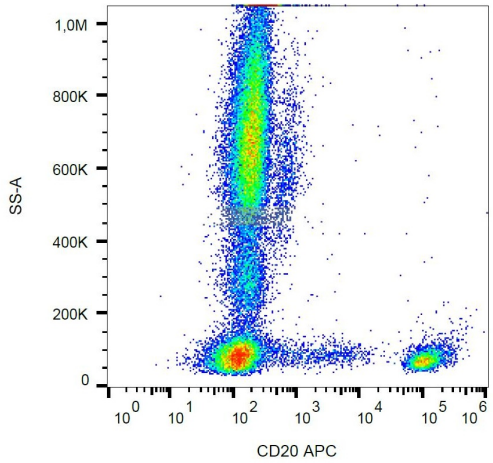
Product Type:	Primary Antibodies
Clone Name:	LT20
Applications:	FC
Recommended Dilution:	**Flow Cytometry** (1/150).
Reactivity:	Human
Host:	Mouse
Isotype:	IgG2a
Clonality:	Monoclonal
Immunogen:	Normal human lymphocytes from lymph node
Specificity:	The antibody LT20 reacts with CD20 (Bp35), a 33-37 kDa non-glycosylated membrane receptor with four transmembrane domains, expressed on B lymphocytes (it is lost on plasma cells), follicular dendritic cells, and at low levels on peripheral blood T lymphocytes.
Formulation:	PBS, pH 7.4 containing 15 mM sodium azide as preservative Label: Biotin State: Liquid purified IgG fraction Label: Conjugated with Biotin-LC-NHS under optimum conditions. The reagent is free of unconjugated biotin.
Concentration:	lot specific
Conjugation:	Biotin
Storage:	Store the antibody undiluted at 2 - 8 °C. DO NOT FREEZE!
Stability:	Shelf life: one year from despatch.
Gene Name:	membrane spanning 4-domains A1
Database Link:	Entrez Gene 931 Human P11836

View online »

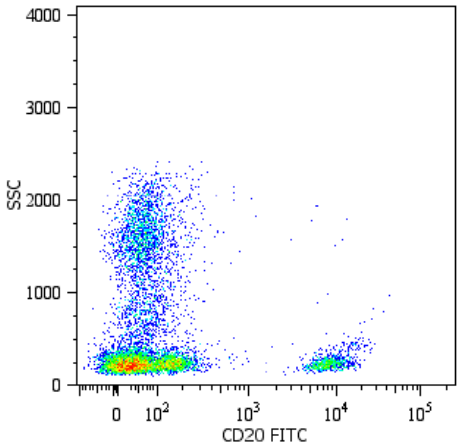
Background: CD20 is a cell surface 33-37 (depending on the degree of phosphorylation) kDa non-glycosylated surface phosphoprotein expressed on mature and most malignant B cells, but not stem cells or plasma cells (low number of the CD20 has been also detected on a subpopulation of T lymphocytes and it 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.

Synonyms: MS4A1, Leu-16, Bp35, B-cell marker

Product images:



Surface staining of human peripheral blood cells with anti-human CD20 (LT20) APC.



Surface staining of human peripheral blood cells with anti-human CD20 (LT20) FITC.