

Product datasheet for **SM3140APC**

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

Product data:

Product Type:	Primary Antibodies
Clone Name:	LT20
Applications:	FC
Recommended Dilution:	Suitable for Flow Cytometry analysis of human blood cells using 10 µl reagent / 100 µl of whole blood or 10 ⁶ cells in a suspension. The content of a vial (1 ml) is sufficient for 100 tests.
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:	Phosphate buffered saline (PBS) solution containing 15mM sodium azide Label: APC State: Liquid purified IgG fraction Label: Conjugated with cross-linked Allophycocyanin (APC) under optimum conditions. The conjugate is purified by size-exclusion chromatography and adjusted for direct use.
Conjugation:	APC
Storage:	Store the antibody in the dark at 2-8°C. Do Not Freeze! Avoid prolonged exposure to light.
Stability:	Shelf life: one year from despatch.
Gene Name:	membrane spanning 4-domains A1
Database Link:	Entrez Gene 931 Human P11836



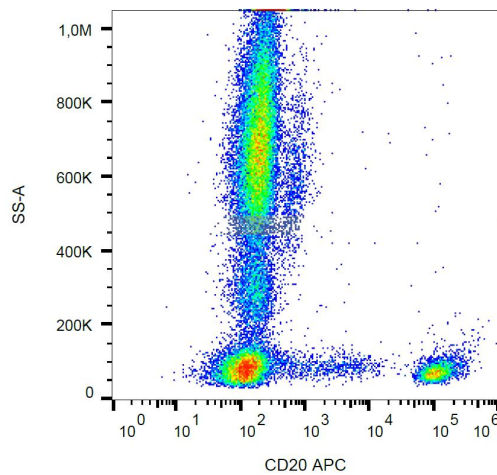
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Background:

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.