

Rabbit anti-Mouse CD20 Monoclonal Antibody | anti-CD20 antibody

Anti-CD20 [18B12]

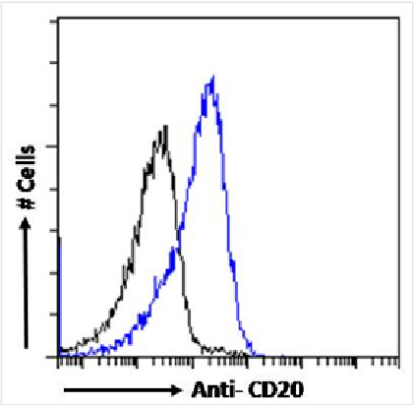
CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA72112	Rabbit	Mouse	Functional Assay, Western Blot, Immunofluorescence, Flow Cytometry, Functional Assay

PRODUCT SYNONYMS

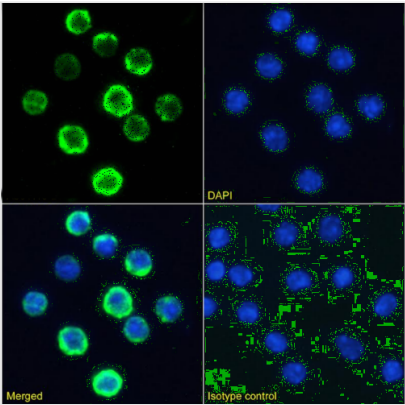
CD20; Monoclonal Antibody; Anti-CD20 [18B12]; Ly-44; B-cell differentiation antigen Ly-44; B-lymphocyte antigen CD20; CD20 antigen; Lymphocyte antigen 44; Membrane-spanning 4-domains subfamily A member 1; membrane-spanning 4-domains; subfamily A; member 2; anti-CD20 antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Mouse
Clonality	Monoclonal
Isotype	Rabbit IgG, kappa
Clone Number	18B12
Specificity	This antibody is specific for murine CD20, which 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. 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.
Purity/Purification	Purified antibody. Protein A affinity purified
Form/Format	PBS with 0.02% Proclin 300.
Concentration	1mg/ml (varies by lot)
Applicable Applications for anti-CD20 antibody	FA (Functional Assay), WB (Western Blot), IF (Immunofluorescence), FCM/FACS (Flow Cytometry)
Chimeric Use Statement	This chimeric rabbit antibody was made using the variable domain sequences of the original Mouse IgG1 format, for improved compatibility with existing reagents, assays and techniques.
PMID	17709552
Preparation and Storage	Store at 4 degree C for up to 3 months. For longer storage, aliquot and store at -20 degree C.



FCM/FACS (Flow Cytometry)
Flow-cytometry using the Anti-CD20 antibody 18B12 (AAA72112). Splenocytes were stained with anti-Fluorescein IgG antibody (4-4-20; isotype control, black line) or the rabbit IgG version of 18B12 (, blue line) at a dilution of 1:100 for 1h at RT. After washing, bound antibody was detected using a goat anti-rabbit IgG AlexaFluor 488 antibody at a dilution of 1:1000 and cells analyzed using a FACSCanto flow-cytometer.



IF (Immunofluorescence)
Immunofluorescence staining of U937 cells using anti-CD20 antibody (AAA72112) 18B12. Immunofluorescence analysis of paraformaldehyde fixed mouse splenocytes immobilized on Shi-fix cover-slips and stained with the chimeric rabbit IgG version of 18B12 () at 10ug/ml followed by Alexa Fluor 488 secondary antibody (2ug/ml), showing membrane staining. The nuclear stain is DAPI (blue). Panels show from left-right, top-bottom , DAPI, merged channels and an isotype control. The isotype control was stained with anti-Fluorescein antibody followed by Alexa Fluor 488 secondary antibody.

ADDITIONAL INFORMATION

Related Product Information for anti-CD20 antibody	Recombinant monoclonal antibody to CD20. Recombinant Platform with variable regions (i.e. specificity) from the hybridoma 18B12. This antibody was generated by immunizing CD20-/- mice with CD20-transfected cell lines (300.18 and 70Z3) and CD20-peptide-keyhole limpet hemocyanin conjugate.
Product Categories/Family for anti-CD20 antibody	immunology; oncology; immuno-oncology; cell signalling; B cells; T cells; CD markers
References	Ahuja et al. Depletion of B cells in murine lupus: efficacy and resistance. J Immunol. 2007 Sep 1;179(5):3351-61 Note on publication: Describe the original generation of this antibody and its in vivo application to better understand how B cell depletion affects autoimmunity.

NCBI AND UNIPROT INFORMATION

NCBI GI #	6671710
NCBI GeneID	12482
NCBI Accession #	NP_031667.1
NCBI GenBank Nucleotide #	NM_007641.5
UniProt Accession #	P19437
Molecular Weight	31,958 Da
NCBI Official Full Name	B-lymphocyte antigen CD20
NCBI Official Synonym Full Names	membrane-spanning 4-domains, subfamily A, member 1
NCBI Official Symbol	Ms4a1
NCBI Official Synonym Symbols	Cd20; Ly-44; Ms4a2; AA960661
NCBI Protein Information	B-lymphocyte antigen CD20
UniProt Protein Name	B-lymphocyte antigen CD20
UniProt Gene Name	Ms4a1

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/monoclonal/cd20-antibody-clone-18b12-functional-assay-western-blot-immunofluorescence-flow-cytometry-elisa/72112>