

Ultra-LEAF™ Purified anti-mouse CD20 Antibody

Catalog# / Size	152116 / 25 mg 152104 / 1 mg 152115 / 5 mg
Clone	SA271G2
Regulatory Status	RUO
Other Names	Ms4a1, Ly-44
Isotype	Rat IgG2b, κ
Description	CD20 is a 33-37 kD protein, a member of the MS4A family, with four transmembrane spanning regions that present as a homo-oligomeric complexes in the cell surface when associating with MHC class I and II, CD53, CD81, and CD82. CD20 is expressed on B cells and a subset of T cells, but not on plasma cells. CD20 regulates B-cell activation and proliferation. Its ligation promotes transmembrane Ca ²⁺ trafficking. CD20 is an important therapeutic target in the treatment of B cell lymphomas and leukemias.

Product Details

Verified Reactivity	Mouse
Antibody Type	Monoclonal
Host Species	Rat
Immunogen	Mouse CD20 transfected cells
Formulation	0.2 μm filtered in phosphate-buffered solution, pH 7.2, containing no preservative. Endotoxin level is <0.01 EU/μg of the protein (<0.001 ng/μg of the protein) as determined by the LAL test.
Preparation	The Ultra-LEAF™ (Low Endotoxin, Azide-Free) antibody was purified by affinity chromatography.
Concentration	The antibody is bottled at the concentration indicated on the vial, typically between 2 mg/mL and 3 mg/mL. Older lots may have also been bottled at 1 mg/mL. To obtain lot-specific concentration, please enter the lot number in our Concentration and Expiration Lookup or Certificate of Analysis online tools.
Storage & Handling	The antibody solution should be stored undiluted between 2°C and 8°C. This Ultra-LEAF™ solution contains no preservative; handle under aseptic conditions.
Application	FC - Quality tested Depletion - Verified
Recommended Usage	Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis . For flow cytometric staining, the suggested use of this reagent is ≤0.25 μg per million cells in 100 μl volume or 100 μl of whole blood. It is recommended that the reagent be titrated for optimal performance for each application. Clone SA271G2 has been validated for <i>in vivo</i> depletion of mouse B cells. Learn more...
Additional Product Notes	View more applications data for this product in our Scientific Poster Library . Watch a Scientific Poster video of this product.
Application References	1. Bongard, A, <i>et al.</i> 2019. <i>PLoS Pathog.</i> 15(9):e1008043. (Depletion) PubMed
(PubMed link indicates BioLegend citation)	
Product Citations	1. Tang KH, <i>et al.</i> 2022. <i>Cancer Discov.</i> 12:47. PubMed 2. Carnasciali A, <i>et al.</i> 2021. <i>J Neuroimmune Pharmacol.</i> 16:376. PubMed 3. Suah AN, <i>et al.</i> 2021. <i>J Clin Invest.</i> 131:1. PubMed 4. Sodir NM, <i>et al.</i> 2020. <i>Cancer Discov.</i> 0.825. PubMed

5. Steffen E, *et al.* 2020. *Basic Res Cardiol.* 18:115. [PubMed](#)
6. Vito A, *et al.* 2021. *Commun Biol.* 4:859. [PubMed](#)
7. Kong H, *et al.* 2020. *PLoS Pathog.* 16:e1008947. [PubMed](#)
8. Rocha-Resende C, *et al.* 2021. *J Mol Cell Cardiol.* 157:98. [PubMed](#)
9. Hollern DP, *et al.* 2020. *Cell.* 179(5):1191-1206.e21.. [PubMed](#)
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RRID AB_2629619 (BioLegend Cat. No. 152116)
 AB_2629619 (BioLegend Cat. No. 152104)
 AB_2629619 (BioLegend Cat. No. 152115)

Antigen Details

Structure	Member of the MS4A family, four transmembrane spanning regions, three isoforms of 37, 35, and 37 kD, depending on the phosphorylation degree.
Distribution	B cells and a subset of T cells
Function	Regulates B-cell activation and proliferation
Interaction	Associates with MHC class I and II, CD53, CD81, and CD82
Cell Type	B cells, T cells
Biology Area	Costimulatory Molecules, Immunology
Molecular Family	CD Molecules
Antigen References	<ol style="list-style-type: none"> 1. Morsy DE, <i>et al.</i> 2013. <i>J. Immunol.</i> 191:3112. 2. Lund FE, Randall TD. 2010. <i>Nat. Rev. Immunol.</i> 10:236. 3. Beers SA, <i>et al.</i> 2010. <i>Blood</i> 115:5191. 4. Kuijpers TW, <i>et al.</i> 2010. <i>J. Clin. Invest.</i> 120:214.
Gene ID	12482

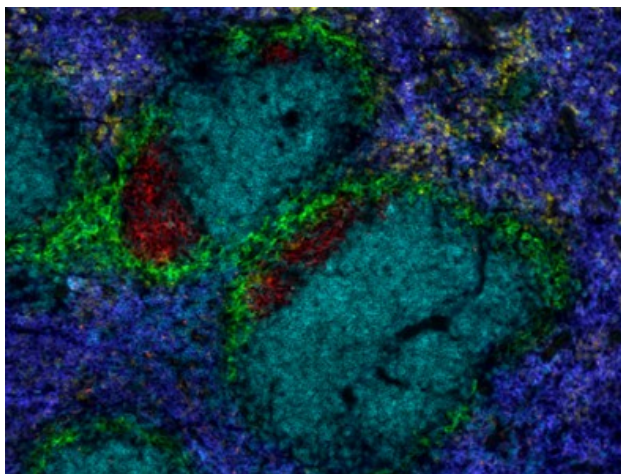
Related Protocols

[Cell Surface Flow Cytometry Staining Protocol](#)

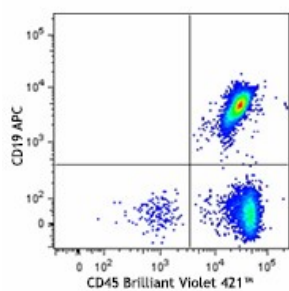
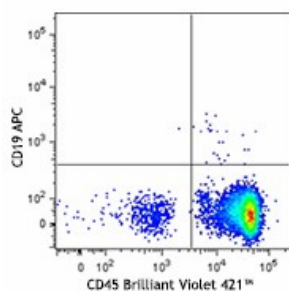
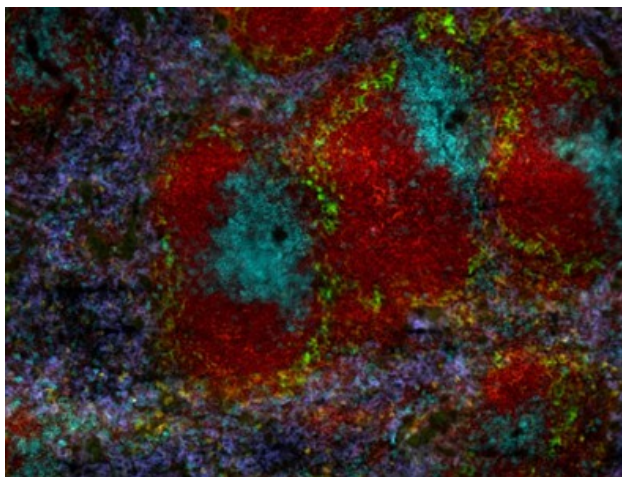
Other Formats

Purified anti-mouse CD20, Ultra-LEAF™ Purified anti-mouse CD20, PE anti-mouse CD20, APC anti-mouse CD20, PE/Dazzle™ 594 anti-mouse CD20 Antibody, FITC anti-mouse CD20, PE/Cyanine5 anti-mouse CD20, APC/Fire™ 750 anti-mouse CD20

Product Data



C57BL/6 mice were injected intravenously with 250 µg of Ultra-LEAF™ Purified anti-mouse CD20 (clone SA271G2) (top panel) or Ultra-LEAF™ purified rat IgG2b, isotype control (bottom panel). At day 7, the mice were sacrificed, spleens were collected, sectioned and stained for microscopy analysis. CD19 is shown in red, CD3 in cyan, CD169 in green, CD11b in yellow, and F4/80 in blue.



C57BL/6J mice were injected i.v. with 250 µg of Ultra-LEAF™ purified anti-mouse CD20 (clone SA271G2) (top) or Ultra-LEAF™ purified rat IgG2b, κ isotype control. At day 7 the mice were bled and the samples were stained with anti-mouse CD19 APC and anti-mouse CD45 Brilliant Violet 421™. Data shown is representative of 4 mice per group.

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