

Brilliant Violet 510™ anti-human CD20 Antibody

Catalog# / Size	302339 / 25 tests 302340 / 100 tests
Clone	2H7
Regulatory Status	RUO
Workshop	IV B201
Other Names	B1, Bp35
Isotype	Mouse IgG2b, κ
Description	CD20 is a 33-37 kD, four transmembrane spanning protein, also known as B1 and Bp35. CD20 is expressed on pre-B-cells, resting and activated B cells (not plasma cells), some follicular dendritic cells, and at low levels on a T cell subset. CD20 is heavily phosphorylated on activated B cells and malignant B cells. Homo-oligomeric complexes of CD20 are thought to form Ca ²⁺ conductive ion channels in the plasma membrane of B cells. The CD20 molecule is involved in B-cell activation and is associated with various Src family kinases (Lyn, Lck, Fyn). It exists in a complex with MHC class I and II, CD53, CD81, and CD82.

Product Details

Verified Reactivity	Human, Cynomolgus, Rhesus
Reported Reactivity	Baboon, Capuchin Monkey, Chimpanzee, Pigtailed Macaque, Squirrel Monkey
Antibody Type	Monoclonal
Host Species	Mouse
Immunogen	Human tonsillar B cells
Formulation	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and BSA (origin USA).
Preparation	The antibody was purified by affinity chromatography and conjugated with Brilliant Violet 510™ under optimal conditions.
Concentration	Lot-specific (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, and protected from prolonged exposure to light. Do not freeze.
Application	FC - Quality tested
Recommended Usage	<p>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 5 µl per million cells in 100 µl staining volume or 5 µl per 100 µl of whole blood.</p> <p>Brilliant Violet 510™ excites at 405 nm and emits at 510 nm. The bandpass filter 510/50 nm is recommended for detection, although filter optimization may be required depending on other fluorophores used. Be sure to verify that your cytometer configuration and software setup are appropriate for detecting this channel. Refer to your instrument manual or manufacturer for support. Brilliant Violet 510™ is a trademark of Sirigen Group Ltd.</p> <p>Learn more about Brilliant Violet™.</p> <p>This product is subject to proprietary rights of Sirigen Inc. and is made and sold under license from Sirigen Inc. The purchase of this product conveys to the buyer a non-transferable right to use the purchased product for research purposes only. This product may not be resold or incorporated in any manner into another product for resale. Any use for therapeutics or diagnostics is strictly prohibited. This product is covered by U.S. Patent(s), pending patent applications and foreign equivalents.</p>
Excitation Laser	Violet Laser (405 nm)

Application Notes The epitope recognized by clone 2H7 has been mapped to the sequence YNCEPANPSEKNSPST which lies in the large extracellular loop of human CD20. Additional reported applications (for the relevant formats) include: immunoprecipitation⁴ and immunohistochemical staining of acetone-fixed frozen sections⁵.

Application References

(PubMed link indicates BioLegend citation)

1. Schlossman S, *et al.* 1995. Leucocyte Typing V. Oxford University Press. New York.
2. Knapp W, *et al.* 1989. Leucocyte Typing IV. Oxford University Press. New York.
3. McMichael A, *et al.* Eds. 1987. Leucocyte Typing III Oxford University Press. New York.
4. Polyak MJ, *et al.* 2002. *Blood* 99:3256. (IP)
5. Mack CL, *et al.* 2004. *Pediatr. Res.* 56:79. (IHC)

Product Citations

1. Weisberg SP, *et al.* 2020. *Cell Reports.* 29(12):3916-3932.e5.. [PubMed](#)
2. Tarke A, *et al.* 2022. *Cell.* 185:847. [PubMed](#)
3. Zabaleta N, *et al.* 2021. *Cell Host Microbe.* .: [PubMed](#)
4. Martins M, *et al.* 2015. *J Virol.* 89: 10802 - 10820. [PubMed](#)
5. Rydzynski Moderbacher C, *et al.* 2022. *J Clin Invest.* .: [PubMed](#)
6. Colby DJ, *et al.* 2018. *Nat Med.* 24:923. [PubMed](#)
7. Giron LB, *et al.* 2020. *EBioMedicine.* 73.94791667. [PubMed](#)

RRID AB_2561721 (BioLegend Cat. No. 302339)
AB_2561941 (BioLegend Cat. No. 302340)

Antigen Details

Structure	Four transmembrane protein (TM4SF), heavily phosphorylated after activation, 33-37 kD
Distribution	B cell, T cell subsets
Function	B cell activation
Ligand/Receptor	Src family tyrosine kinases, MHC class I, II, CD53, CD81, CD82
Cell Type	B cells, T cells
Biology Area	Costimulatory Molecules, Immunology
Molecular Family	CD Molecules
Antigen References	1. Hultin L, <i>et al.</i> 1993. <i>Cytometry</i> 14:196. 2. Tedder T, <i>et al.</i> 1994. <i>Immunol. Today</i> 15:450.
Gene ID	931

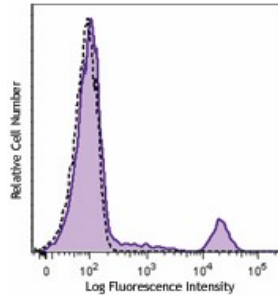
Related Protocols

[Cell Surface Flow Cytometry Staining Protocol](#)

Other Formats

APC anti-human CD20, FITC anti-human CD20, PE anti-human CD20, PE/Cyanine5 anti-human CD20, Purified anti-human CD20, APC/Cyanine7 anti-human CD20, PE/Cyanine7 anti-human CD20, Alexa Fluor® 488 anti-human CD20, Alexa Fluor® 647 anti-human CD20, Pacific Blue™ anti-human CD20, Alexa Fluor® 700 anti-human CD20, PerCP anti-human CD20, PerCP/Cyanine5.5 anti-human CD20, Brilliant Violet 421™ anti-human CD20, Brilliant Violet 570™ anti-human CD20, Brilliant Violet 605™ anti-human CD20, Brilliant Violet 650™ anti-human CD20, Brilliant Violet 785™ anti-human CD20, Brilliant Violet 510™ anti-human CD20, Brilliant Violet 711™ anti-human CD20, Purified anti-human CD20 (Maxpar® Ready), PE/Dazzle™ 594 anti-human CD20, Biotin anti-human CD20, APC/Fire™ 750 anti-human CD20, Alexa Fluor® 594 anti-human CD20, TotalSeq™-A0100 anti-human CD20, TotalSeq™-B0100 anti-human CD20, TotalSeq™-C0100 anti-human CD20, Spark NIR™ 685 anti-human CD20, Spark YG™ 593 anti-human CD20, GMP FITC anti-human CD20, TotalSeq™-D0100 anti-human CD20, GMP APC anti-human CD20

Product Data



Human peripheral blood lymphocytes were stained with CD20 (clone 2H7) Brilliant Violet 510™ (filled histogram) or mouse IgG2b, κ Brilliant Violet 510™ (open histogram).

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