

Purified anti-human CD19 Antibody

Catalog# / Size	302201 / 25 µg 302202 / 100 µg
Clone	HIB19
Regulatory Status	RUO
Workshop	V CD19.11
Other Names	B4
Isotype	Mouse IgG1, κ
Description	CD19 is a 95 kD type I transmembrane glycoprotein also known as B4. It is a member of the immunoglobulin superfamily expressed on B-cells (from pro-B to blastoid B cells, absent on plasma cells) and follicular dendritic cells. CD19 is involved in B cell development, activation, and differentiation. CD19 forms a complex with CD21 (CR2) and CD81 (TAPA-1), and functions as a BCR co-receptor.

Product Details

Verified Reactivity	Human
Reported Reactivity	Chimpanzee
Antibody Type	Monoclonal
Host Species	Mouse
Formulation	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.
Preparation	The antibody was purified by affinity chromatography.
Concentration	0.5 mg/ml
Storage & Handling	The antibody solution should be stored undiluted between 2°C and 8°C.
Application	FC - Quality tested CyTOF® IHC-F - Verified PG - Reported in the literature, not verified in house
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 ≤ 0.5 µg per 10 ⁶ cells in 100 µl volume or 100 µl of whole blood. For immunohistochemistry, a concentration range of 5.0 - 10 µg/ml is suggested. It is recommended that the reagent be titrated for optimal performance for each application.
Application Notes	Additional reported applications (for the relevant formats) include: immunohistochemical staining of acetone-fixed frozen tissue sections ⁸ and blocking of B cell proliferation. Clone HIB19 is not recommended for formalin-fixed paraffin-embedded sections. The Ultra-LEAF™ purified antibody (Endotoxin < 0.01 EU/µg, Azide-Free, 0.2 µm filtered) is recommended for functional assays (Cat. No. 302267 & 302268). Clone HIB19 partially blocks anti-human CD19 clones 4G7 and SJ25C1 staining based on in-house testing
Application References	1. Schlossman S, <i>et al.</i> 1995. Leucocyte Typing V. Oxford University Press. New York. 2. Knapp W, <i>et al.</i> 1989. Leucocyte Typing IV. Oxford University Press. New York. 3. Bradbury L, <i>et al.</i> 1993. <i>J. Immunol.</i> 151:2915. 4. Joseph A, <i>et al.</i> 2010. <i>J. Virol.</i> 84:6645. PubMed 5. Wang X, <i>et al.</i> 2010. <i>Haematologica.</i> 95:884. (FC) PubMed 6. Walker JD, <i>et al.</i> 2009. <i>J. Immunol.</i> 182:1548. (Block) PubMed 7. Yoshino N, <i>et al.</i> 2000. <i>Exp. Anim. (Tokyo)</i> 49:97. (FC) 8. Hansen A, <i>et al.</i> 2002. <i>Arthritis Rheum.</i> 46:2160. (IHC) 9. Stoeckius M, <i>et al.</i> 2017. <i>Nat. Methods.</i> 14:865. (PG)
(PubMed link indicates BioLegend citation)	

10. Peterson VM, et al. 2017. Nat. Biotechnol. 35:936. (PG)

Product Citations

1. Fu J *et al.* 2019. Cell stem cell. 24(2):227-239 . [PubMed](#)
2. Dallari S, *et al.* 2017. Nat Commun. 8:14830. [PubMed](#)
3. Rouers A, *et al.* 2021. Cell Rep Med. 2:100278. [PubMed](#)
4. Weinhage T, *et al.* 2020. J Immunol. 205:56. [PubMed](#)
5. Gadalla R, *et al.* 2022. STAR Protoc. 3:101643. [PubMed](#)
6. Alroqi F, *et al.* 2017. J Clin Immunol. . 10.1007/s10875-017-0451-1. [PubMed](#)
7. Walker J, *et al.* 2009. J Immunol. 182:1548. [PubMed](#)
8. Korn MA, *et al.* 2020. J Immunol. 205:2595. [PubMed](#)
9. Cao Q, *et al.* 2018. Am J Physiol Renal Physiol. 314:F561. [PubMed](#)
10. Gupta R, *et al.* 2022. Front Immunol. 13:886442. [PubMed](#)
11. Pugh J, *et al.* 2021. PeerJ. 9:e12258. [PubMed](#)
12. Chakhtoura M, *et al.* 2021. PLoS Pathog. 17:e1009732. [PubMed](#)
13. Lartey S, *et al.* 2020. J Infect Dis. 221:21. [PubMed](#)
14. Mann ER, *et al.* 2020. Sci Immunol. :5. [PubMed](#)
15. Kaufmann M, *et al.* 2021. Med. 2(3):296-312.e8. [PubMed](#)
16. Winkler M, *et al.* 2017. PLoS One. . 10.1371/journal.pone.0182427. [PubMed](#)
17. Sigal N, *et al.* 2022. Methods Mol Biol. 2543:113. [PubMed](#)
18. Zhang Y, *et al.* 2022. Exp Hematol Oncol. 11:15. [PubMed](#)
19. Gruber CN, *et al.* 2020. Immunity. 53(3):672-684. [PubMed](#)
20. Li Y, *et al.* 2019. Front Immunol. 0.460416667. [PubMed](#)
21. Yoshihara S, *et al.* 2019. Front Immunol. 0.545833333. [PubMed](#)
22. Smillie CS *et al.* 2019. Cell. 178(3):714-730 . [PubMed](#)
23. Liu X, *et al.* 2022. STAR Protoc. 3:101310. [PubMed](#)
24. Sun Y, *et al.* 2022. Nat Commun. 13:3916. [PubMed](#)
25. Ferdosi SR, *et al.* 2019. Nat Commun. 1.695833333. [PubMed](#)
26. Martin JC, *et al.* 2020. Cell. 178(6):1493-1508.e20.. [PubMed](#)
27. Cerignoli F, *et al.* 2018. PLoS One. 13:e0193498. [PubMed](#)
28. O'Boyle KC, *et al.* 2020. Methods Mol Biol. 2111:1. [PubMed](#)
29. Eldredge LC, *et al.* 2019. Am J Physiol Lung Cell Mol Physiol. 317:L49. [PubMed](#)
30. Johnston HE, *et al.* 2018. Mol Cell Proteomics. 1.247222222. [PubMed](#)
31. Bruno TC, *et al.* 2017. Cancer Immunol Res. 0.831944444. [PubMed](#)
32. Corleis B, *et al.* 2017. PLoS One. 12:e0173161. [PubMed](#)
33. Speir M, *et al.* 2017. Sci Rep. . 10.1038/s41598-017-14690-5. [PubMed](#)
34. Agrawal N, *et al.* 2018. Front Immunol. 2.053472222. [PubMed](#)
35. Baskar R, *et al.* 2022. Cell Rep Methods. 2:. [PubMed](#)
36. Renand A, *et al.* 2018. J Allergy Clin Immunol. 141:1750. [PubMed](#)
37. Del Alcazar D, *et al.* 2019. Cell Rep. 28:3047. [PubMed](#)
38. Sattler A, *et al.* 2021. Am J Transplant. 21:87. [PubMed](#)
39. Han L, *et al.* 2019. Haematologica. 10.3324/haematol.2018.205534. [PubMed](#)
40. Roussel M, *et al.* 2021. Cell Reports Medicine. 2(6):100291. [PubMed](#)
41. Chng MHY, *et al.* 2020. Immunity. 51(6):1119-1135.e5.. [PubMed](#)
42. Singh AK, *et al.* 2017. Front Immunol. 0.513888889. [PubMed](#)
43. Han SS, *et al.* 2018. Oncotarget. 9:3292. [PubMed](#)
44. Lee YS, *et al.* 2021. J Immunother Cancer. 9:. [PubMed](#)
45. Kato M, *et al.* 2021. PLoS One. 16:e0252116. [PubMed](#)
46. Newell KL, *et al.* 2021. PLoS One. 16:e0244855. [PubMed](#)
47. Schwabenland M, *et al.* 2021. Immunity. . [PubMed](#)
48. Bengsch B *et al.* 2018. Immunity. 48(5):1029-1045 . [PubMed](#)
49. Evrard M *et al.* 2018. Immunity. 48(2):364-379 . [PubMed](#)
50. De Maeyer RPH, *et al.* 2020. Nat Immunol. 21:615. [PubMed](#)
51. Anna F, *et al.* 2021. J Immunother Cancer. 9:. [PubMed](#)
52. Crome SQ, *et al.* 2017. Nat Med. 1.213888889. [PubMed](#)
53. Afzali B, *et al.* 2017. Nat Immunol. 18:813. [PubMed](#)
54. Kennedy-Darling J, *et al.* 2021. Eur J Immunol. 51:1262. [PubMed](#)
55. Vanshylla K, *et al.* 2018. Eur J Immunol. 48:441. [PubMed](#)
56. Dinh HQ, *et al.* 2020. Immunity. 53(2):319-334.e6. [PubMed](#)
57. Crawford LB, *et al.* 2021. J Virol. 95:. [PubMed](#)
58. Aina A, *et al.* 2020. Microbiol Immunol. 64:313. [PubMed](#)
59. Martin E, *et al.* 2020. JCI Insight. :5. [PubMed](#)
60. Leylek R, *et al.* 2020. Cell Rep. 32:108180. [PubMed](#)
61. Lavin Y *et al.* 2017. Cell. 169(4):750-765 . [PubMed](#)
62. Chiou SH, *et al.* 2021. Immunity. 54:586. [PubMed](#)

RRID

AB_314231 (BioLegend Cat. No. 302201)
AB_314232 (BioLegend Cat. No. 302202)

Antigen Details

Structure	Ig superfamily, type I transmembrane glycoprotein, 95 kD
Distribution	B lineage (except plasma cells), follicular dendritic cells
Function	B cell activation and differentiation

Ligand/Receptor	Forms complex with CD21 (CR2) and CD81 (TAPA-1), BCR coreceptor
Cell Type	B cells, Dendritic cells
Biology Area	Costimulatory Molecules, Immunology
Molecular Family	CD Molecules
Antigen References	1. Tedder T, <i>et al.</i> 1994. <i>Immunol. Today</i> 15:437. 2. Bradbury L, <i>et al.</i> 1993. <i>J. Immunol.</i> 151:2915.
Gene ID	930

Related Protocols

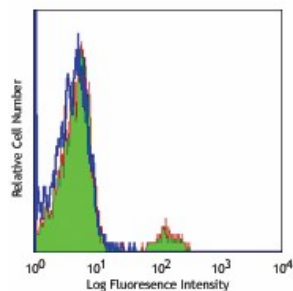
[Immunohistochemistry Protocol for Frozen Sections](#)

[Cell Surface Flow Cytometry Staining Protocol](#)

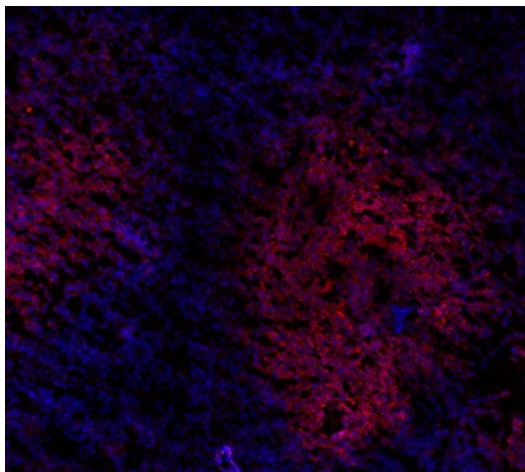
Other Formats

APC anti-human CD19, Biotin anti-human CD19, FITC anti-human CD19, PE anti-human CD19, PE/Cyanine5 anti-human CD19, Purified anti-human CD19, APC/Cyanine7 anti-human CD19, PE/Cyanine7 anti-human CD19, Alexa Fluor® 488 anti-human CD19, Alexa Fluor® 647 anti-human CD19, Pacific Blue™ anti-human CD19, Alexa Fluor® 700 anti-human CD19, PerCP anti-human CD19, PerCP/Cyanine5.5 anti-human CD19, Brilliant Violet 421™ anti-human CD19, Brilliant Violet 570™ anti-human CD19, Brilliant Violet 650™ anti-human CD19, Brilliant Violet 785™ anti-human CD19, Brilliant Violet 510™ anti-human CD19, Brilliant Violet 605™ anti-human CD19, Brilliant Violet 711™ anti-human CD19, Purified anti-human CD19 (Maxpar® Ready), Alexa Fluor® 594 anti-human CD19, PE/Dazzle™ 594 anti-human CD19, APC/Fire™ 750 anti-human CD19, TotalSeq™-A0050 anti-human CD19, Brilliant Violet 750™ anti-human CD19, TotalSeq™-B0050 anti-human CD19, TotalSeq™-C0050 anti-human CD19, Spark NIR™ 685 anti-human CD19, Ultra-LEAF™ Purified anti-human CD19, APC/Fire™ 810 anti-human CD19, PE/Fire™ 640 anti-human CD19, PE/Fire™ 700 anti-human CD19, TotalSeq™-D0050 anti-human CD19, Spark YG™ 593 anti-human CD19, GMP Pacific Blue™ anti-human CD19, Spark Violet™ 423 anti-human CD19, GMP PE anti-human CD19, GMP APC anti-human CD19, KIRAVIA Blue 520™ anti-human CD19, GMP PerCP/Cyanine5.5 anti-human CD19, GMP PE/Cyanine7 anti-human CD19, Spark Violet™ 500 anti-human CD19

Product Data



Human peripheral blood lymphocytes stained with purified HIB19, followed by anti-mouse IgGs FITC



Human frozen spleen tissue slices were fixed with 4% PFA for ten minutes and blocked with 5% FBS for 30 minutes. Then, the tissue was stained with 10 µg/mL of purified anti-human CD19 antibody (clone HIB19) overnight at 4°C. On the next day, tissue was incubated with Alexa Fluor® 594 Goat anti-mouse IgG (clone Poly4053, red). Nuclei were counter-stained with DAPI (blue). The image was scanned with a 10X objective and stitched with MetaMorph® software.

For research use only. Not for diagnostic use. Not for resale. BioLegend will not be held responsible for patent infringement or other violations that may occur with the use of our products.

*These products may be covered by one or more Limited Use Label Licenses (see the BioLegend Catalog or our website, www.biolegend.com/ordering#license). BioLegend products may not be transferred to third parties, resold, modified for resale, or used to manufacture commercial products, reverse engineer functionally similar materials, or to provide a service to third parties without written approval of BioLegend. By use of these products you accept the terms and conditions of all applicable Limited Use Label Licenses. Unless otherwise indicated, these products are for research use only and are not intended for human or animal diagnostic, therapeutic or commercial use.

BioLegend Inc., 8999 BioLegend Way, San Diego, CA 92121 www.biolegend.com
Toll-Free Phone: 1-877-Bio-Legend (246-5343) Phone: (858) 768-5800 Fax: (877) 455-9587