

Brilliant Violet 421™ anti-human CD197 (CCR7) Antibody

Catalog# / Size	353207 / 25 tests 353208 / 100 tests
Clone	G043H7
Regulatory Status	RUO
Other Names	BLR2, CDw197, EBI1, CMKBR7
Isotype	Mouse IgG2a, κ
Description	CCR7, also known as CD197, is a chemokine receptor that binds CCL19 and CCL21. CCR7 and its ligands link innate and adaptive immunity by affecting interactions between T cells and dendritic cells and their downstream effect. Naïve T cells enter the lymph node through high endothelial venules, which express CCL21. Dendritic cells and macrophages enter the lymph node through afferent lymphatics. The encounter of T cells and dendritic cells in the T cell zone is CCR7-dependent. In addition, during immunological surveillance, B cells recirculate between B-cell-rich compartments (follicles or B cell zones) in secondary lymphoid organs, surveying for antigen. After antigen binding, B cells move to the boundary of B and T zones to interact with T-helper cells; this B cell migration is directed by CCR7 and its ligands. CCR7-positive cancer cell expression has been associated with lymph node metastasis.

Product Details

Verified Reactivity	Human
Reported Reactivity	African Green, Baboon, Cynomolgus, Rhesus
Antibody Type	Monoclonal
Host Species	Mouse
Immunogen	CCR7-transfected 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 421™ 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	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. Brilliant Violet 421™ excites at 405 nm and emits at 421 nm. The standard bandpass filter 450/50 nm is recommended for detection. Brilliant Violet 421™ is a trademark of Sirigen Group Ltd. Learn more about Brilliant Violet™. 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.
Excitation Laser	Violet Laser (405 nm)
Product Citations	

1. Ols S, *et al.* 2020. Cell Reports. 30(12):3964-3971. [PubMed](#)
2. Argüello RJ, *et al.* 2020. Cell Metab. 32:1063. [PubMed](#)
3. Jiang XL, *et al.* 2021. Nat Commun. 12:897. [PubMed](#)
4. Eslamizar L, *et al.* 2021. NPJ Vaccines. 6:15. [PubMed](#)
5. Karlsson H, *et al.* 2015. PLoS One. 10: 0144787. [PubMed](#)
6. Cassotta A, *et al.* 2019. Nat Med. 25:1402. [PubMed](#)
7. Spandan V Shah *et al.* 2018. Cell reports. 25(10):2766-2774 . [PubMed](#)
8. Mandolesi M, *et al.* 2021. Cell Reports Medicine. 2(4):100252. [PubMed](#)
9. Findlay EG, *et al.* 2019. Oncoimmunology. 8:1608106. [PubMed](#)
10. Ahmed R, *et al.* 2020. Cell Rep. 33:108501. [PubMed](#)
11. Pan YG, *et al.* 2021. Immunity. 54(6):1245-1256.e5. [PubMed](#)
12. Ramaswamy A, *et al.* 2021. Immunity. 54(5):1083-1095.e7. [PubMed](#)
13. Szabo PA, *et al.* 2021. Immunity. 54(4):797-814. e6. [PubMed](#)
14. Wallin J, *et al.* 2016. Nat Commun. 7:12624. [PubMed](#)
15. Geiger R, *et al.* 2016. Cell. 167:829-842. [PubMed](#)
16. van der Ploeg K, *et al.* 2022. Cell Rep Med. 3:100640. [PubMed](#)
17. Richert-Spuhler LE, *et al.* 2021. Cell Reports Medicine. 2(6):100322. [PubMed](#)
18. Thompson EA, *et al.* 2019. Cell Rep. 28:1127. [PubMed](#)
19. Siddiqui I *et al.* 2019. Immunity. 50(1):195-211 . [PubMed](#)
20. Bovay A, *et al.* 2020. Hum Vaccin Immunother. 16:3103. [PubMed](#)
21. Azeem W, *et al.* 2021. Biomedicines. 9: . [PubMed](#)
22. Yu C, *et al.* 2021. Med (N Y). 2:755. [PubMed](#)
23. Pais Ferreira D, *et al.* 2020. Immunity. 53(5):985-1000.e11. [PubMed](#)
24. Grifoni A, *et al.* 2020. Cell. 181(7):1489-1501.e15.. [PubMed](#)
25. Barcelo H, *et al.* 2018. Curr Protoc Cytom. 84:e35. [PubMed](#)
26. Cassotta A, *et al.* 2020. J Exp Med. 217:00:00. [PubMed](#)
27. Kacherovsky N, *et al.* 2019. Nat Biomed Eng. 0.66875. [PubMed](#)
28. Bziat V, *et al.* 2021. Cell. . [PubMed](#)
29. Port JR, *et al.* 2020. J Virol. 94:. [PubMed](#)
30. Lozano-Rodriguez R, *et al.* 2022. Cell Rep. 38:110235. [PubMed](#)
31. Waddington KE, *et al.* 2020. Front Immunol. 1.51875. [PubMed](#)
32. Halkias J, *et al.* 2019. J Clin Invest. 130:3562. [PubMed](#)
33. Marcandalli J *et al.* 2019. Cell. 176(6):1420-1431 . [PubMed](#)
34. Dai Z, *et al.* 2022. Signal Transduct Target Ther. 7:85. [PubMed](#)
35. Neumann B, *et al.* 2015. J Leukoc Biol. 97:19. [PubMed](#)
36. Georg P, *et al.* 2022. Cell. 185:493. [PubMed](#)
37. Rosato PC, *et al.* 2019. Nat Commun. 10:567. [PubMed](#)
38. Sparber F, *et al.* 2019. Cell Host Microbe. 25:389. [PubMed](#)
39. Azeem W, *et al.* 2020. Front Immunol. 11:438. [PubMed](#)
40. Thyagarajan B, *et al.* 2018. J Immunol Methods. 463:61. [PubMed](#)
41. Nobs SP, *et al.* 2017. J Exp Med. 214:3015. [PubMed](#)
42. Abd Hamid M *et al.* 2019. Cancer Immunol Res. 7(8):1293-1306 . [PubMed](#)
43. Gustafson CE, *et al.* 2020. JCI Insight. 5:. [PubMed](#)
44. Benner M, *et al.* 2020. Cell Rep. 32:108204. [PubMed](#)
45. Darrah PA, *et al.* 2019. NPJ Vaccines. 4:21. [PubMed](#)
46. Fu J, *et al.* 2021. J Clin Invest. 131:. [PubMed](#)
47. Grutza R, *et al.* 2020. J Immunol. 204:2910. [PubMed](#)
48. Cassotta A, *et al.* 2020. Eur J Immunol. . [PubMed](#)
49. Gerna G, *et al.* 2015. J Gen Virol. 96:360. [PubMed](#)
50. Vadaq N, *et al.* 2022. iScience. 25:105089. [PubMed](#)

RRID AB_10915137 (BioLegend Cat. No. 353207)
 AB_11203894 (BioLegend Cat. No. 353208)

Antigen Details

Structure	Chemokine receptor, G protein-coupled receptors (GPCR), seven transmembrane receptor.
Distribution	T cells, B cells, NK, dendritic cells.
Function	The chemokine receptor CCR7 plays a pivotal role in the homing of naïve T cells and regulatory T cells to secondary lymphoid organs, and the migration of dendritic cells into afferent lymphatic vessels.
Ligand/Receptor	CCL19 and CCL21.
Cell Type	B cells, Dendritic cells, NK cells, T cells
Biology Area	Immunology
Molecular Family	CD Molecules, Cytokine/Chemokine Receptors, GPCR
Antigen References	<ol style="list-style-type: none"> 1. Yanagihara S, <i>et al.</i> 1998. <i>J. Immunol.</i> 161:3096. 2. Charo IF, <i>et al.</i> 2006. <i>N. Engl. J. Med.</i> 354:610. 3. Reif K, <i>et al.</i> 2002. <i>Nature</i> 416:94. 4. Nakata B, <i>et al.</i> 2008. <i>Oncology</i> 74:69.

5. Brodie T. *et al.* 2013. *Cytometry A*. 6: 530-2. [PubMed](#)
6. Graves A.J. *et al.* 2014. *Cytometry A*. 7: 576–9 [PubMed](#)
7. Moncunill G. *et al.* 2014. *Cytometry A*. 12: 995-8 [PubMed](#)

Gene ID [1236](#)

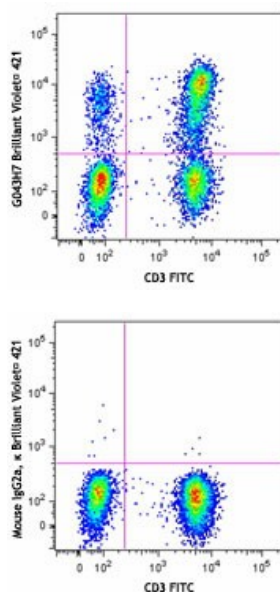
Related Protocols

[Cell Surface Flow Cytometry Staining Protocol](#)

Other Formats

Purified anti-human CD197 (CCR7), Alexa Fluor® 488 anti-human CD197 (CCR7), Brilliant Violet 421™ anti-human CD197 (CCR7), PE anti-human CD197 (CCR7), APC/Cyanine7 anti-human CD197 (CCR7), Pacific Blue™ anti-human CD197 (CCR7), APC anti-human CD197 (CCR7), FITC anti-human CD197 (CCR7), Alexa Fluor® 647 anti-human CD197 (CCR7), PerCP/Cyanine5.5 anti-human CD197 (CCR7), Brilliant Violet 605™ anti-human CD197 (CCR7), PE/Cyanine7 anti-human CD197 (CCR7), Brilliant Violet 711™ anti-human CD197 (CCR7), Brilliant Violet 785™ anti-human CD197 (CCR7), Brilliant Violet 510™ anti-human CD197 (CCR7), Brilliant Violet 650™ anti-human CD197 (CCR7), PE/Dazzle™ 594 anti-human CD197 (CCR7), Biotin anti-human CD197 (CCR7), Purified anti-human CD197 (CCR7) (Maxpar® Ready), PerCP anti-human CD197 (CCR7), Alexa Fluor® 700 anti-human CD197 (CCR7), APC/Fire™ 750 anti-human CD197 (CCR7), TotalSeq™-A0148 anti-human CD197 (CCR7), TotalSeq™-B0148 anti-human CD197 (CCR7), TotalSeq™-C0148 anti-human CD197 (CCR7), Brilliant Violet 750™ anti-human CD197 (CCR7), Ultra-LEAF™ Purified anti-human CD197 (CCR7), Spark NIR™ 685 anti-human CD197 (CCR7), KIRAVIA Blue 520™ anti-human CD197 (CCR7), PE/Fire™ 640 anti-human CD197 (CCR7), Spark YG™ 581 anti-human CD197 (CCR7), APC/Fire™ 810 anti-human CD197 (CCR7) Antibody, TotalSeq™-D0148 anti-human CD197 (CCR7), PE/Fire™ 810 anti-human CD197 (CCR7) Antibody, PE/Cyanine5 anti-human CD197 (CCR7)

Product Data



Human peripheral blood lymphocytes were stained with CD3 FITC and CCR7/CD197 (clone G043H7) Brilliant Violet 421™ (top) or mouse IgG2a, κ Brilliant Violet 421™ isotype control (bottom).

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

