

## Brilliant Violet 785™ anti-human CD197 (CCR7) Antibody

<b>Catalog# / Size</b>	353229 / 25 tests 353230 / 100 tests
<b>Clone</b>	G043H7
<b>Regulatory Status</b>	RUO
<b>Other Names</b>	BLR2, CDw197, EBI1, CMKBR7
<b>Isotype</b>	Mouse IgG2a, κ
<b>Description</b>	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

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<b>Verified Reactivity</b>	Human
<b>Reported Reactivity</b>	African Green, Baboon, Cynomolgus, Rhesus
<b>Antibody Type</b>	Monoclonal
<b>Host Species</b>	Mouse
<b>Immunogen</b>	CCR7-transfected cells
<b>Formulation</b>	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and BSA (origin USA).
<b>Preparation</b>	The antibody was purified by affinity chromatography and conjugated with Brilliant Violet 785™ under optimal conditions.
<b>Concentration</b>	Lot-specific (to obtain lot-specific concentration, please enter the lot number in our <a href="#">Concentration and Expiration Lookup</a> or <a href="#">Certificate of Analysis</a> online tools.)
<b>Storage &amp; Handling</b>	The antibody solution should be stored undiluted between 2°C and 8°C, and protected from prolonged exposure to light. <b>Do not freeze.</b>
<b>Application</b>	<a href="#">FC - Quality tested</a>
<b>Recommended Usage</b>	Each lot of this antibody is quality control tested by <a href="#">immunofluorescent staining with flow cytometric analysis</a> . 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 785™ excites at 405 nm and emits at 785 nm. The bandpass filter 780/60 nm is recommended for detection, although filter optimization may be required depending on other fluorophores used. <b>Be sure to verify that your cytometer configuration and software setup are appropriate for detecting this channel.</b> Refer to your instrument manual or manufacturer for support. Brilliant Violet 785™ is a trademark of Sirigen Group Ltd.

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<b>Excitation Laser</b>	Violet Laser (405 nm)
<b>Product Citations</b>	<ol style="list-style-type: none"> <li>Liu C, <i>et al.</i> 2021. <i>Cell</i>. 184(7):1836-1857.e22. <a href="#">PubMed</a></li> <li>Saggau C, <i>et al.</i> 2022. <i>Immunity</i>. . <a href="#">PubMed</a></li> <li>Barros-Martins J, <i>et al.</i> 2021. <i>Nat Med</i>. 27:1525. <a href="#">PubMed</a></li> <li>Bacher P, <i>et al.</i> 2020. <i>Immunity</i>. . <a href="#">PubMed</a></li> <li>Sutton HJ, <i>et al.</i> 2021. <i>Cell Reports</i>. 34(6):108684. <a href="#">PubMed</a></li> <li>Ogishi M, <i>et al.</i> 2022. <i>J Exp Med</i>. 219:. <a href="#">PubMed</a></li> <li>Kreutmair S, <i>et al.</i> 2021. <i>Immunity</i>. . <a href="#">PubMed</a></li> <li>Obradovic A, <i>et al.</i> 2021. <i>Cell</i>. 184(11):2988-3005.e16. <a href="#">PubMed</a></li> <li>Rodda LB, <i>et al.</i> 2020. <i>Cell</i>. 184(1):169-183.e17. <a href="#">PubMed</a></li> <li>Balle C, <i>et al.</i> 2022. <i>J Clin Invest</i>. .: <a href="#">PubMed</a></li> <li>Vardam-Kaur T, <i>et al.</i> 2021. <i>Oncotarget</i>. 12:2051. <a href="#">PubMed</a></li> <li>Bunis DG, <i>et al.</i> 2021. <i>Cell Reports</i>. 34(1):108573. <a href="#">PubMed</a></li> <li>Den Braanker H, <i>et al.</i> 2021. <i>Front Immunol</i>. 12:768113. <a href="#">PubMed</a></li> <li>Mudd PA, <i>et al.</i> 2022. <i>Cell</i>. 185:603. <a href="#">PubMed</a></li> <li>Lozano-Ojalvo D, <i>et al.</i> 2021. <i>Cell Rep</i>. 36:109570. <a href="#">PubMed</a></li> <li>Behrens GMN, <i>et al.</i> 2022. <i>Nat Commun</i>. 13:4872. <a href="#">PubMed</a></li> <li>Riese P, <i>et al.</i> 2022. <i>Nat Commun</i>. 13:6894. <a href="#">PubMed</a></li> <li>Corrado M, <i>et al.</i> 2020. <i>Cell Metab</i>. 32:981. <a href="#">PubMed</a></li> </ol>
<b>RRID</b>	<p>AB_2561371 (BioLegend Cat. No. 353229)</p> <p>AB_2563630 (BioLegend Cat. No. 353230)</p>

## Antigen Details

<b>Structure</b>	Chemokine receptor, G protein-coupled receptors (GPCR), seven transmembrane receptor.
<b>Distribution</b>	T cells, B cells, NK, dendritic cells.
<b>Function</b>	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.
<b>Ligand/Receptor</b>	CCL19 and CCL21.
<b>Cell Type</b>	B cells, Dendritic cells, NK cells, T cells
<b>Biology Area</b>	Immunology
<b>Molecular Family</b>	CD Molecules, Cytokine/Chemokine Receptors, GPCR
<b>Antigen References</b>	<ol style="list-style-type: none"> <li>Yanagihara S, <i>et al.</i> 1998. <i>J. Immunol</i>. 161:3096.</li> <li>Charo IF, <i>et al.</i> 2006. <i>N. Engl. J. Med</i>. 354:610.</li> <li>Reif K, <i>et al.</i> 2002. <i>Nature</i> 416:94.</li> <li>Nakata B, <i>et al.</i> 2008. <i>Oncology</i> 74:69.</li> <li>Brodie T. <i>et al.</i> 2013. <i>Cytometry A</i>. 6: 530-2. <a href="#">PubMed</a></li> <li>Graves A.J. <i>et al.</i> 2014. <i>Cytometry A</i>. 7: 576–9 <a href="#">PubMed</a></li> <li>Moncunill G. <i>et al.</i> 2014. <i>Cytometry A</i>. 12: 995-8 <a href="#">PubMed</a></li> </ol>
<b>Gene ID</b>	<a href="#">1236</a>

## Related Protocols

[Cell Surface Flow Cytometry Staining Protocol](#)

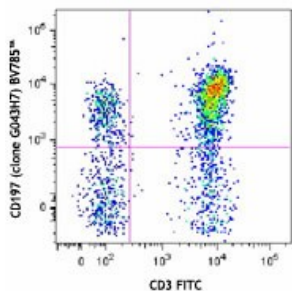
## Other Formats

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

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Human peripheral blood lymphocytes were stained with CD3 FITC and CD197 (clone G043H7) Brilliant Violet 785™.

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