

## Brilliant Violet 510™ anti-human CD197 (CCR7) Antibody

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| <b>Catalog# / Size</b>   | 353231 / 25 tests<br>353232 / 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 510™ 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 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.

[Learn more about Brilliant Violet™.](#)

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| <b>Excitation Laser</b>  | Violet Laser (405 nm)   |
| <b>Product Citations</b> | <ol style="list-style-type: none"> <li>1. Martin AR, <i>et al.</i> 2020. EBioMedicine. 62:103102. <a href="#">PubMed</a></li> <li>2. Lieberman L, <i>et al.</i> 2016. Neurology. 86: 375 - 381. <a href="#">PubMed</a></li> </ol> |
| <b>RRID</b>              | <p>AB_2561937 (BioLegend Cat. No. 353231)</p> <p>AB_2563866 (BioLegend Cat. No. 353232)</p>   |

## Antigen Details

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| <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>1. Yanagihara S, <i>et al.</i> 1998. <i>J. Immunol.</i> 161:3096.</li> <li>2. Charo IF, <i>et al.</i> 2006. <i>N. Engl. J. Med.</i> 354:610.</li> <li>3. Reif K, <i>et al.</i> 2002. <i>Nature</i> 416:94.</li> <li>4. Nakata B, <i>et al.</i> 2008. <i>Oncology</i> 74:69.</li> <li>5. Brodie T. <i>et al.</i> 2013. <i>Cytometry A.</i> 6: 530-2. <a href="#">PubMed</a></li> <li>6. Graves A.J. <i>et al.</i> 2014. <i>Cytometry A.</i> 7: 576–9 <a href="#">PubMed</a></li> <li>7. 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

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[Cell Surface Flow Cytometry Staining Protocol](#)

## Other Formats

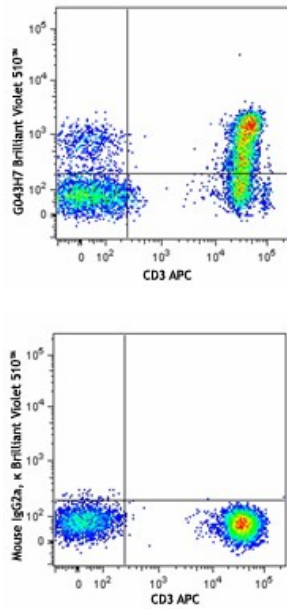
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Purified anti-human CD197 (CCR7), Alexa Fluor® 488 anti-human CD197 (CCR7), Brilliant Violet 421™ anti-human CD197 (CCR7), PE anti-human CD197 (CCR7), APC/Cyanine7 anti-human CD197 (CCR7), Pacific Blue™ anti-human CD197 (CCR7), APC anti-human CD197 (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 APC and CD197 (clone G043H7) Brilliant Violet 510™ (top) or mouse IgG2a, κ Brilliant Violet 510™ isotype control (bottom).



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