

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

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| Catalog# / Size | 353231 / 25 tests 353232 / 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

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

Antigen Details

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| 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. <i>et al.</i> 2013. <i>Cytometry A.</i> 6: 530-2. PubMed 6. Graves A.J. <i>et al.</i> 2014. <i>Cytometry A.</i> 7: 576–9 PubMed 7. Moncunill G. <i>et al.</i> 2014. <i>Cytometry A.</i> 12: 995-8 PubMed |
| Gene ID | 1236 |

Related Protocols

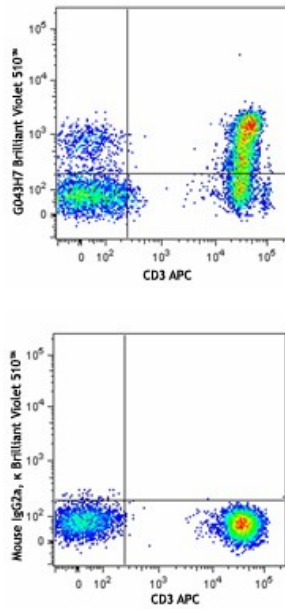
[Cell Surface Flow Cytometry Staining Protocol](#)

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 APC and CD197 (clone G043H7) Brilliant Violet 510™ (top) or mouse IgG2a, κ Brilliant Violet 510™ isotype control (bottom).



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