

TotalSeq™-A0148 anti-human CD197 (CCR7) Antibody

Catalog# / Size	353247 / 10 µg
Clone	G043H7
Regulatory Status	RUO
Other Names	BLR2, CDw197, EB11, CMKBR7
Isotype	Mouse IgG2a, κ
Barcode Sequence	AGTTCAGTCAACCGA
Description	<p>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. Naive 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.</p>

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 1 mM EDTA.
Preparation	The antibody was purified by chromatography and conjugated with TotalSeq™-A oligomer under optimal conditions.
Concentration	0.5 mg/ml
Storage & Handling	The antibody solution should be stored undiluted between 2°C and 8°C. Do not freeze.
Application	PG - Quality tested
Recommended Usage	<p>Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis and the oligomer sequence is confirmed by sequencing. TotalSeq™-A antibodies are compatible with 10x Genomics Single Cell Gene Expression Solutions.</p> <p>To maximize performance, it is strongly recommended that the reagent be titrated for each application, and that you centrifuge the antibody dilution before adding to the cells at 14,000xg at 2 - 8°C for 10 minutes. Carefully pipette out the liquid avoiding the bottom of the tube and add to the cell suspension. For Proteogenomics analysis, the suggested starting amount of this reagent for titration is ≤ 1.0 µg per million cells in 100 µL volume. Refer to the corresponding TotalSeq™ protocol for specific staining instructions.</p> <p>Buyer is solely responsible for determining whether Buyer has all intellectual property rights that are necessary for Buyer's intended uses of the BioLegend TotalSeq™ products. For example, for any technology platform Buyer uses with TotalSeq™, it is Buyer's sole responsibility to determine whether it has all necessary third party intellectual property rights to use that platform and TotalSeq™ with that platform.</p>
Additional Product Notes	TotalSeq™ reagents are designed to profile protein levels at a single cell level following an optimized protocol similar to the CITE-seq workflow. A compatible single cell device (e.g. 10x Genomics Chromium System and Reagents) and sequencer (e.g. Illumina analyzers) are required.

Please contact [technical support](#) for more information, or visit biolegend.com/totalseq.

The barcode flanking sequences are CCTTGGCACCCGAGAATTCCA (PCR handle), and BAAA*A*A (capture sequence). B represents either C, G, or T, and * indicates a phosphorothioated bond, to prevent nuclease degradation.

View more applications data for this product in our [Scientific Poster Library](#).

Product Citations

1. Cook CP, *et al.* 2022. Cell Rep Med. 3:100715. [PubMed](#)
2. Stuart T, *et al.* 2019. Cell. 177:1888. [PubMed](#)
3. Witkowski MT, *et al.* 2020. Cancer Cell. 37:867. [PubMed](#)
4. Swanson E, *et al.* 2021. eLife. 10:00. [PubMed](#)

RRID AB_2750357 (BioLegend Cat. No. 353247)

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 naive 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. PubMed6. Graves A.J. <i>et al.</i> 2014. <i>Cytometry A.</i> 7: 576-9 PubMed7. Moncunill G. <i>et al.</i> 2014. <i>Cytometry A.</i> 12: 995-8 PubMed
Gene ID	1236

Related Protocols

[TotalSeq™-A Antibodies and Cell Hashing with 10x Single Cell 3' Reagent Kit v3 3.1 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)

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