

## PerCP/Cyanine5.5 anti-mouse CD194 (CCR4) Antibody

<b>Catalog# / Size</b>	131219 / 25 µg 131220 / 100 µg
<b>Clone</b>	2G12
<b>Regulatory Status</b>	RUO
<b>Other Names</b>	CC CKR-4, CHEMR1, Cmkbr4, LESTR, MGC151418, Sdf1r
<b>Isotype</b>	Armenian Hamster IgG
<b>Description</b>	Mouse CCR4 cDNA contains 1531 bp, and encodes a protein of 360 amino acids that is 85% identical to human CCR4. CCR4 binds CCL17 (TARG) and CCL22 (MDC). Naïve T cells, bearing receptors for cutaneous antigens, become activated in skin-draining lymph nodes and express cutaneous lymphocyte antigen (CLA), which confers to these cells the capacity to migrate into the skin to exert their normal effector functions (1). CCR4 and CCR10 play an important role in the ligand-mediated recruitment of T cells into the skin in mice and humans, specifically with regards to tethering, firm adhesion, and subsequent extravasation to the site of injury (2,3). CCR4 is expressed in cutaneous regulatory T cells (Tregs). These cells are crucial for the induction and maintenance of self-tolerance and are present in peripheral tissues such as skin and gut under normal, noninflamed conditions (4). In addition, recruitment of Foxp3+ T regulatory cells mediating allograft tolerance depends on the CCR4 chemokine receptor and its ligand CCL22 (5).

### Product Details

<b>Verified Reactivity</b>	Mouse
<b>Antibody Type</b>	Monoclonal
<b>Host Species</b>	Armenian Hamster
<b>Formulation</b>	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.
<b>Preparation</b>	The antibody was purified by affinity chromatography and conjugated with PerCP/Cyanine5.5 under optimal conditions.
<b>Concentration</b>	0.2 mg/ml
<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 = 0.5 µg per million cells in 100 µl volume. It is recommended that the reagent be titrated for optimal performance for each application.  * PerCP/Cyanine5.5 has a maximum absorption of 482 nm and a maximum emission of 690 nm.
<b>Excitation Laser</b>	Blue Laser (488 nm)
<b>Additional Product Notes</b>	BioLegend is in the process of converting the name PerCP/Cy5.5 to PerCP/Cyanine5.5. The dye molecule remains the same, so you should expect the same quality and performance from our PerCP/Cyanine5.5 products. Contact <a href="#">Technical Service</a> if you have any questions.
<b>Application References</b>	<ol style="list-style-type: none"> <li>1. Saito K, <i>et al.</i> 2008. <i>J. Immunol.</i> 181:6889. <a href="#">PubMed</a></li> <li>2. Ueha S, <i>et al.</i> 2007. <i>J. Leukoc. Biol.</i> 82:1230. <a href="#">PubMed</a></li> <li>3. Sharma R, <i>et al.</i> 2009 <i>J. Immunol.</i> 183:1065 (FC) <a href="#">PubMed</a></li> <li>4. Dogan R, <i>et al.</i> 2011. <i>J. Leukoc. Biol.</i> 89:93. <a href="#">PubMed</a></li> <li>5. Liu H, <i>et al.</i> 2011. <i>Sci Transl Med.</i> 3:82. <a href="#">PubMed</a>.</li> <li>6. Shankar SP, <i>et al.</i> 2012. <i>J Immunol.</i> 188:6347. <a href="#">PubMed</a>.</li> </ol>
<b>RRID</b>	AB_2750070 (BioLegend Cat. No. 131219)

(PubMed link indicates BioLegend citation)

## Antigen Details

<b>Structure</b>	GPCR, chemokine receptor, seven transmembrane receptor
<b>Distribution</b>	Memory T cells, macrophages, platelets, basophils, Th2 cells, and Tregs
<b>Function</b>	CCR4 and its ligands (CCL17 and CCL22) are important for the recruitment of memory T cells into the skin in various cutaneous immune diseases.
<b>Interaction</b>	Interaction between CCR4 and its ligand TARC/CCL17 on activated endothelial cells mediates T cell extravasation by stimulating integrin-dependent adhesion
<b>Ligand/Receptor</b>	CCL17 and CCL22
<b>Cell Type</b>	Basophils, Embryonic Stem Cells, Macrophages, Platelets, T cells, Th2, Tregs
<b>Biology Area</b>	Immunology, Stem Cells
<b>Molecular Family</b>	CD Molecules, Cytokine/Chemokine Receptors, GPCR
<b>Antigen References</b>	<ol style="list-style-type: none"> <li>1. Biederman T, <i>et al.</i> 2002. <i>Eur. J. Immun.</i> 32:3171.</li> <li>2. Mirshahpanah P, <i>et al.</i> 2008. <i>Exp. Dermatol.</i> 17:30.</li> <li>3. Kusumoto M, <i>et al.</i> 2007. <i>J. Interferon Cytokine Res</i> 27:901.</li> <li>4. Clark RA and Kupper TS. 2006. <i>Blood</i> 109:194.</li> <li>5. Lee I, <i>et al.</i> 2005. <i>J. Exp. Med.</i> 201:1037.</li> </ol>
<b>Gene ID</b>	<a href="#">12773</a>

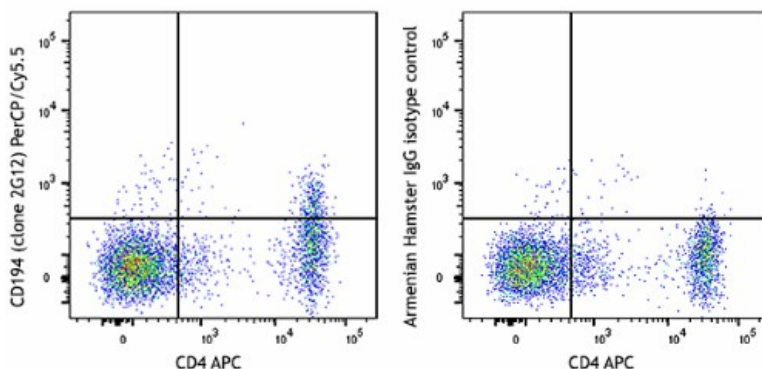
## Related Protocols

[Cell Surface Flow Cytometry Staining Protocol](#)

## Other Formats

Purified anti-mouse CD194 (CCR4), PE anti-mouse CD194 (CCR4), APC anti-mouse CD194 (CCR4), PE/Cyanine7 anti-mouse CD194 (CCR4), Biotin anti-mouse CD194 (CCR4), Brilliant Violet 421™ anti-mouse CD194 (CCR4), PerCP/Cyanine5.5 anti-mouse CD194 (CCR4), TotalSeq™-C0833 anti-mouse CD194 (CCR4), TotalSeq™-B0833 anti-mouse CD194 (CCR4) Antibody

## Product Data



Hyper-immunized BALB/c splenocytes stained with CD4 (clone GK1.5) APC and CD194 (clone 2G12) PerCP/Cyanine5.5 (left) or Armenian Hamster IgG PerCP/Cyanine5.5 Isotype Control (Right).

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