

## PE anti-human CD193 (CCR3) Antibody

<b>Catalog# / Size</b>	310705 / 25 tests 310706 / 100 tests
<b>Clone</b>	5E8
<b>Regulatory Status</b>	RUO
<b>Other Names</b>	CC CKR3, MIP1-alpha receptor like-2, eotaxin receptor, CD193, CCR3
<b>Isotype</b>	Mouse IgG2b, κ
<b>Description</b>	CD193, also known as CC-chemokine receptor 3 (CCR3), CC CKR3, MIP1-alpha receptor like-2, and eotaxin receptor, is a member of the G protein-coupled seven transmembrane receptors family. It binds to the CC chemokines eotaxin, eotaxin-2, and eotaxin-3 with high affinity. CCR3 has also been reported to bind RANTES, MCP-3, and MCP-4 with low affinity. CCR3 receptor is expressed on human eosinophils, basophils, mast cells, mononuclear phagocytes, platelets, CD34 <sup>+</sup> hematopoietic progenitor cells, Th2-like lymphocytes, and keratinocytes. CCR3 is thought to play a role in allergic diseases such as bronchial asthma and allergic rhinitis. CCR3 is a co-receptor for HIV-1 and HIV-2, and the binding of eotaxin with CCR3 has been shown to inhibit HIV infection in some cell types.

### Product Details

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<b>Verified Reactivity</b>	Human
<b>Antibody Type</b>	Monoclonal
<b>Host Species</b>	Mouse
<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 PE 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.
<b>Excitation Laser</b>	Blue Laser (488 nm) Green Laser (532 nm)/Yellow-Green Laser (561 nm)
<b>Application Notes</b>	Additional reported applications (for the relevant formats) include: The 5E8 antibody is useful for immunofluorescent staining and flow cytometric analysis of CCR3 expression.  It has been observed that the 5E8 antibody clone can interact with PE/Cy7 antibody conjugates during multi-color staining, potentially leading to unwanted staining. This interaction can be resolved by sequentially staining with the 5E8 antibody first and then followed by the PE/Cy7 conjugate of interest.
<b>Application References</b>	1. Beauvillian C, <i>et al.</i> 2011. <i>Blood</i> 117:1196. <a href="#">PubMed</a>
<b>(PubMed link indicates BioLegend citation)</b>	
<b>Product Citations</b>	1. Toepfner N <i>et al.</i> 2018. <i>eLife</i> . 7 pii: e29213. <a href="#">PubMed</a> 2. Galdiero MR, <i>et al.</i> 2018. <i>PLoS One</i> . 13:e0199740. <a href="#">PubMed</a> 3. Risnik D, <i>et al.</i> 2017. <i>Sci Rep</i> . 7:15714. <a href="#">PubMed</a>

4. Port JR, *et al.* 2020. J Virol. 94: PubMed
5. An S, *et al.* 2013. PLoS One. 8:81377. PubMed
6. Yin S, *et al.* 2015. Sci Rep. 5: 14432. PubMed
7. An S, *et al.* 2013. Mol Cell Proteomics. 12:1818. PubMed
8. Ehrens A, *et al.* 2021. Cell Reports. 34(2):108621. PubMed
9. Yang JY, *et al.* 2020. J Cell Mol Med. PubMed
10. Mpakou V, *et al.* 2021. Exp Ther Med. 1.010416667. PubMed

**RRID** AB\_345395 (BioLegend Cat. No. 310705)  
 AB\_345396 (BioLegend Cat. No. 310706)

## Antigen Details

<b>Structure</b>	G-protein coupled seven transmembrane domain receptor, 356 amino acids
<b>Distribution</b>	Eosinophils, basophils, mast, mononuclear phagocytes, platelets, CD34 <sup>+</sup> hematopoietic progenitor, Th2, keratinocytes
<b>Function</b>	Co-receptor for HIV-1 and HIV-2, allergy
<b>Receptors</b>	Eotaxin, eotaxin-2, eotaxin-3
<b>Cell Type</b>	Eosinophils, Erythrocytes, Hematopoietic stem and progenitors, Macrophages, Mast cells, Thymocytes
<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. Gerard W, <i>et al.</i> 1996. <i>J. Exp. Med.</i> 183:2437.</li> <li>2. Ugucioni C, <i>et al.</i> 1997. <i>J. Clin. Invest.</i> 100:1137.</li> <li>3. Sallusto F, <i>et al.</i> 1997. <i>Science.</i> 277:2005.</li> <li>4. Loetscher P, <i>et al.</i> 2001. <i>J. Biol. Chem.</i> 276:2986.</li> </ol>
<b>Regulation</b>	Upregulated by high affinity Fc IgE receptor ligation (mast cells), RANTES (keratinocytes), IFN $\gamma$ (monocytes, neutrophils), HIV tat protein (basophils), IL-3, IL-5 and GM-CSF (CD34 <sup>+</sup> progenitor cells), IL-2 and IL-4(T cells). Downregulated by IL-
<b>Gene ID</b>	<a href="#">1232</a>

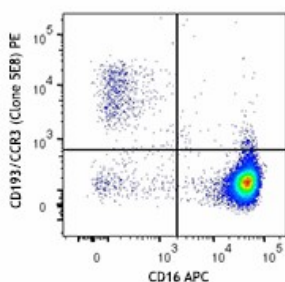
## Related Protocols

[Cell Surface Flow Cytometry Staining Protocol](#)

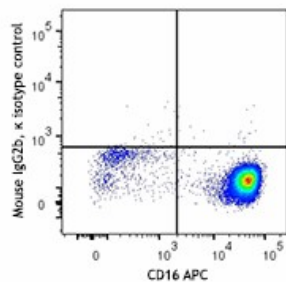
## Other Formats

Purified anti-human CD193 (CCR3), PE anti-human CD193 (CCR3), Brilliant Violet 605™ anti-human CD193 (CCR3), APC anti-human CD193 (CCR3), Alexa Fluor® 647 anti-human CD193 (CCR3), APC/Cyanine7 anti-human CD193 (CCR3), Brilliant Violet 421™ anti-human CD193 (CCR3), PerCP/Cyanine5.5 anti-human CD193 (CCR3), FITC anti-human CD193 (CCR3), Brilliant Violet 510™ anti-human CD193 (CCR3), Biotin anti-human CD193 (CCR3), APC/Fire™ 750 anti-human CD193 (CCR3), PE/Dazzle™ 594 anti-human CD193 (CCR3), TotalSeq™-A0397 anti-human CD193 (CCR3), TotalSeq™-C0397 anti-human CD193 (CCR3), Brilliant Violet 711™ anti-human CD193 (CCR3) Antibody, TotalSeq™-D0397 anti-human CD193 (CCR3)

## Product Data



Human peripheral blood leukocytes were stained with CD16 APC and CD193 (clone 5E8) PE (top) or mouse IgG2b,  $\kappa$  PE isotype control (bottom). Data shown was gated on the granulocyte population.



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