

Brilliant Violet 510™ anti-human CD193 (CCR3) Antibody

Catalog# / Size	310721 / 25 tests 310722 / 100 tests
Clone	5E8
Regulatory Status	RUO
Other Names	CC CKR3, MIP1-alpha receptor like-2, eotaxin receptor, CD193, CCR3
Isotype	Mouse IgG2b, κ
Description	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 ⁺ 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

Verified Reactivity	Human
Antibody Type	Monoclonal
Host Species	Mouse
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	<p>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.</p> <p>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.</p> <p>Learn more about Brilliant Violet™.</p> <p>This product is subject to proprietary rights of Sirigen Inc. and is made and sold under license from Sirigen Inc. The purchase of this product conveys to the buyer a non-transferable right to use the purchased product for research purposes only. This product may not be resold or incorporated in any manner into another product for resale. Any use for therapeutics or diagnostics is strictly prohibited. This product is covered by U.S. Patent(s), pending patent applications and foreign equivalents.</p>
Excitation Laser	Violet Laser (405 nm)
Application Notes	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.

Application References

1. Beauvillian C, *et al.* 2011. *Blood* 117:1196. [PubMed](#)

(PubMed link indicates BioLegend citation)

Product Citations

1. Bergamaschi L, *et al.* 2021. *Immunity*. 54(6):1257-1275.e8. [PubMed](#)

RRID

AB_2571976 (BioLegend Cat. No. 310721)
AB_2571977 (BioLegend Cat. No. 310722)

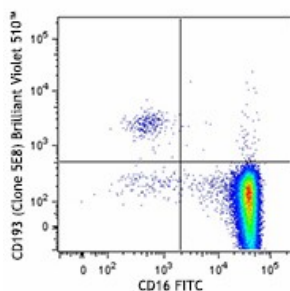
Antigen Details

Structure	G-protein coupled seven transmembrane domain receptor, 356 amino acids
Distribution	Eosinophils, basophils, mast, mononuclear phagocytes, platelets, CD34 ⁺ hematopoietic progenitor, Th2, keratinocytes
Function	Co-receptor for HIV-1 and HIV-2, allergy
Receptors	Eotaxin, eotaxin-2, eotaxin-3
Cell Type	Eosinophils, Erythrocytes, Hematopoietic stem and progenitors, Macrophages, Mast cells, Thymocytes
Biology Area	Immunology
Molecular Family	CD Molecules, Cytokine/Chemokine Receptors, GPCR
Antigen References	<ol style="list-style-type: none">1. Gerard W, <i>et al.</i> 1996. <i>J. Exp. Med.</i> 183:2437.2. Ugucioni C, <i>et al.</i> 1997. <i>J. Clin. Invest.</i> 100:1137.3. Sallusto F, <i>et al.</i> 1997. <i>Science.</i> 277:2005.4. Loetscher P, <i>et al.</i> 2001. <i>J. Biol. Chem.</i> 276:2986.
Regulation	Upregulated by high affinity Fc IgE receptor ligation (mast cells), RANTES (keratinocytes), IFN γ (monocytes, neutrophils), HIV tat protein (basophils), IL-3, IL-5 and GM-CSF (CD34 ⁺ progenitor cells), IL-2 and IL-4(T cells). Downregulated by IL-
Gene ID	1232

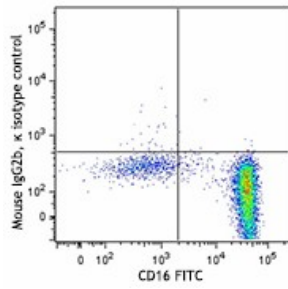
Other Formats

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 FITC and CD193 (clone 5E8) Brilliant Violet 510™ (top) or mouse IgG2b, κ Brilliant Violet 510™ isotype control (bottom). Data shown was generated from granulocyte population gating.



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