Technical Data Sheet

PE-CF594 Mouse Anti-Human CD193

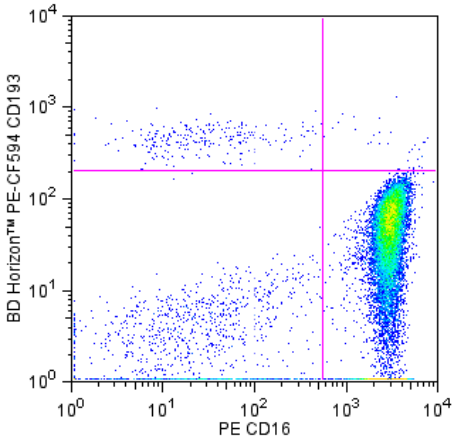
Product Information

Material Number:	**562571**
Alternate Name:	CD193; C-C CKR-3; CKR3; CMKBR3; Chemokine (C-C motif) receptor 3
Size:	50 tests
Vol. per Test:	5 µl
Clone:	5E8
Isotype:	Mouse (C57BL/6) IgG2b, κ
Reactivity:	QC Testing: Human
Storage Buffer:	Aqueous buffered solution containing BSA and ≤0.09% sodium azide.

Description

The 5E8 monoclonal antibody specifically binds to human CCR3. CCR3 is a G protein-linked, 7 transmembrane, chemokine receptor expressed on a variety of hematopoietic cells. Similar to CCR5 and CXCR4, CCR3 can be a co-receptor for HIV-1. It is primarily expressed by eosinophils and basophils during atopic conditions, dermatitis, allergic rhinitis, conjunctivitis and bronchial asthma. Chemokines including RANTES, Eotaxin, MCP-3, MIP1α have been reported to act as ligands for CCR3 and stimulate CCR3+ cells. Eotaxin stimulates Th2 cells expressing CCR3. Other studies describe HIV-1 specific T cell cytotoxicity can be mediated by RANTES and Eotaxin through CCR3. CCR3 expressed on dendritic cells may have a biological role on cell-cell interaction during antigen presentation. CCR3 has been clustered as CD193 in the HLDA VIIIth workshop.

This antibody is conjugated to BD Horizon™ PE-CF594, which has been developed exclusively by BD Biosciences as a better alternative to PE-Texas Red®. PE-CF594 excites and emits at similar wavelengths to PE-Texas Red® yet exhibits improved brightness and spectral characteristics. Due to PE having maximal absorption peaks at 496 nm and 564 nm, PE-CF594 can be excited by the blue (488-nm), green (532-nm) and yellow-green (561-nm) lasers and can be detected with the same filter set as PE-Texas Red® (eg 610/20-nm filter).



Flow cytometric analysis of CD193 expression on human peripheral blood granulocytes (eosinophils). *Whole blood was stained with BD Horizon™ PE-CF594 Mouse Anti-Human CD193 antibody (Cat. No. 562571) and PE Mouse Anti-Human CD16 (Cat. No. 555407/560995). The erythrocytes were lysed with BD Pharm Lyse™ Lysing Buffer (Cat. No. 555899). Two-color flow cytometric dot plots showing the correlated expression of CD193 versus CD16 was derived from events with the forward and side light-scatter characteristics of viable granulocytes. Flow cytometry was performed using a BD™ LSR II Flow Cytometer System.*

Preparation and Storage

Store undiluted at 4°C and protected from prolonged exposure to light. Do not freeze.
The antibody was conjugated with BD Horizon™ PE-CF594 under optimum conditions, and unconjugated antibody and free PE-CF594 were removed.
The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

Application Notes

Application

Flow cytometry	Routinely Tested

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Suggested Companion Products

Catalog Number	Name	Size	Clone
562305	PE-CF594 Mouse IgG2b, κ Isotype Control	0.1 mg	27-35
554656	Stain Buffer (FBS)	500 ml	(none)
555899	Lysing Buffer	100 ml	(none)
555407	PE Mouse Anti-Human CD16	100 tests	3G8
560995	PE Mouse Anti-Human CD16	25 tests	3G8

Product Notices

1. This reagent has been pre-diluted for use at the recommended Volume per Test. We typically use 1 × 10^6 cells in a 100-µl experimental sample (a test).
2. An isotype control should be used at the same concentration as the antibody of interest.
3. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
4. Please observe the following precautions: Absorption of visible light can significantly alter the energy transfer occurring in any tandem fluorochrome conjugate; therefore, we recommend that special precautions be taken (such as wrapping vials, tubes, or racks in aluminum foil) to prevent exposure of conjugated reagents, including cells stained with those reagents, to room illumination.
5. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.
6. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at www.bdbiosciences.com/colors.
7. Texas Red is a registered trademark of Molecular Probes, Inc., Eugene, OR.
8. CF™ is a trademark of Biotium, Inc.
9. When excited by the yellow-green (561-nm) laser, the fluorescence may be brighter than when excited by the blue (488-nm) laser.
10. This product is provided under an Agreement between BIOTIUM and BD Biosciences. The manufacture, use, sale, offer for sale, or import of this product is subject to one or more patents or pending applications owned or licensed by Biotium, Inc. This product, and only in the amount purchased by buyer, may be used solely for buyer's own internal research, in a manner consistent with the accompanying product literature. No other right to use, sell or otherwise transfer (a) this product, or (b) its components is hereby granted expressly, by implication or by estoppel. This product is for research use only. Diagnostic uses require a separate license from Biotium, Inc. For information on purchasing a license to this product including for purposes other than research, contact Biotium, Inc., 3159 Corporate Place, Hayward, CA 94545, Tel: (510) 265-1027. Fax: (510) 265-1352. Email: btinfo@biotium.com.
11. Because of the broad absorption spectrum of the tandem fluorochrome, extra care must be taken when using multi-laser cytometers, which may directly excite both PE and CF™594.
12. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.

References

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Sato K, Kawasaki H, Nagayama H, et al. CC chemokine receptors, CCR-1 and CCR-3, are potentially involved in antigen-presenting cell function of human peripheral blood monocyte-derived dendritic cells. *Blood.* 1999; 93(1):34-42. (Biology)

Zimmermann N, Daugherty BL, Stark JM, Rothenberg ME. Molecular analysis of CCR-3 events in eosinophilic cells. *J Immunol.* 2000; 164(2):1055-1064. (Biology)

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