

Technical Data Sheet

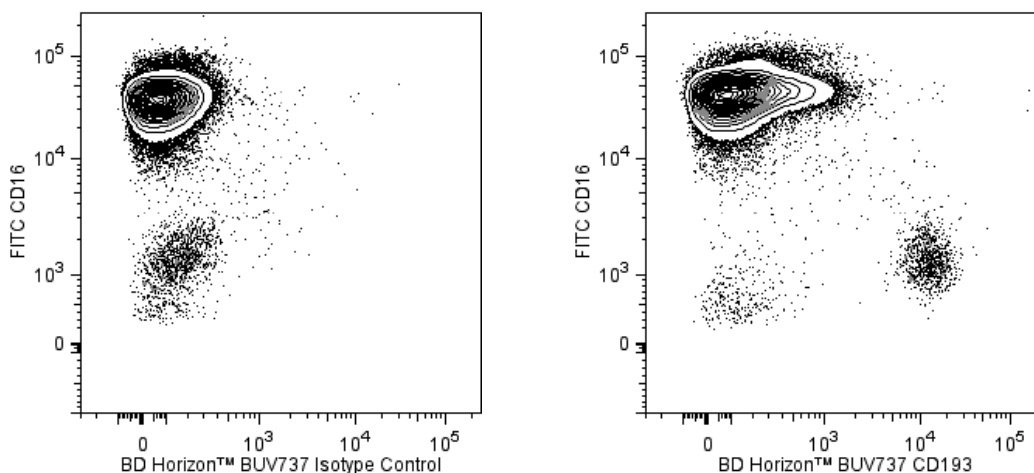
BUV737 Mouse Anti-Human CD193**Product Information**

Material Number:	564705
Alternate Name:	CCR3: Chemokine (C-C motif) receptor 3; C-C CKR-3; CKR3; CMKBR3
Size:	50 Tests
Vol. per Test:	5 µl
Clone:	5E8 (also known as 5E8-G9-B4)
Immunogen:	Human CCR3 Transfected Cell Line
Isotype:	Mouse (C57BL/6) IgG2b, κ
Reactivity:	QC Testing: Human
Storage Buffer:	Aqueous buffered solution containing ≤0.09% sodium azide.

Description

The 5E8 monoclonal antibody specifically binds to human CCR3 which is also known as CD193. 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.

The antibody was conjugated to BD Horizon BUV737 which is part of the BD Horizon Brilliant™ Ultraviolet family of dyes. This dye is a tandem fluorochrome with an Ex Max near 350 nm and an Em Max near 737 nm. BD Horizon Brilliant BUV737 can be excited by the ultraviolet laser (355 nm) and detected with a 740/35 nm filter. Due to the excitation of the acceptor dye by the red laser line, there may be significant spillover into red laser detectors with filters in the 700-720 nm range.



Two-color flow cytometric analysis of CD193 expression on human peripheral blood granulocytes (eosinophils). Whole blood was stained with FITC Mouse Anti-Human CD16 (Cat. No. 555406/556618/560996) and either BD Horizon™ BUV737 Mouse IgG2b, κ Isotype Control (Cat. No. 564429; Left Panel) or BD Horizon BUV737 Mouse Anti-Human CD193 antibody (Cat. No. 564705; Right Panel). Erythrocytes were lysed with BD FACS Lysing Solution (Cat. No. 349202). A two-color flow cytometric contour plot showing the correlated expression of CD16 versus CD193 was derived from events with the forward and side light-scatter characteristics of intact granulocytes. Flow cytometric analysis 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 monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

The antibody was conjugated to the dye under optimum conditions and unconjugated antibody and free dye were removed.

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Application Notes

Application

Flow cytometry

Routinely Tested

Recommended Assay Procedure:

BD™ CompBeads can be used as surrogates to assess fluorescence spillover (Compensation). When fluorochrome conjugated antibodies are bound to BD CompBeads, they have spectral properties very similar to cells. However, for some fluorochromes there can be small differences in spectral emissions compared to cells, resulting in spillover values that differ when compared to biological controls. It is strongly recommended that when using a reagent for the first time, users compare the spillover on cells and BD CompBead to ensure that BD CompBeads are appropriate for your specific cellular application.

For optimal and reproducible results, BD Horizon Brilliant Stain Buffer should be used anytime two or more BD Horizon Brilliant dyes are used in the same experiment. Fluorescent dye interactions may cause staining artifacts which may affect data interpretation. The BD Horizon Brilliant Stain Buffer was designed to minimize these interactions. More information can be found in the Technical Data Sheet of the BD Horizon Brilliant Stain Buffer (Cat. No. 563794/566349) or the BD Horizon Brilliant Stain Buffer Plus (Cat. No. 566385).

Note: When using high concentrations of antibody, background binding of this dye to erythroid cell subsets (mature erythrocytes and precursors) has been observed. For researchers studying these cell populations, or in cases where light scatter gating does not adequately exclude these cells from the analysis, this background may be an important factor to consider when selecting reagents for panel(s).

Suggested Companion Products

Catalog Number	Name	Size	Clone
554656	Stain Buffer (FBS)	500 mL	(none)
554657	Stain Buffer (BSA)	500 mL	(none)
563794	Brilliant Stain Buffer	100 Tests	(none)
564429	BUV737 Mouse IgG2b, κ Isotype Control	50 μ g	27-35
560996	FITC Mouse Anti-Human CD16	25 Tests	3G8
556618	FITC Mouse Anti-Human CD16	50 Tests	3G8
555406	FITC Mouse Anti-Human CD16	100 Tests	3G8
555899	Lysing Buffer	100 mL	(none)
349202	BD FACSTM Lysing Solution	100 mL	(none)
566349	Brilliant Stain Buffer	1000 Tests	(none)
566385	Brilliant Stain Buffer Plus	1000 Tests	(none)

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- μ l experimental sample (a test).
2. An isotype control should be used at the same concentration as the antibody of interest.
3. 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.
4. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at www.bdbiosciences.com/colors.
5. BD Horizon Brilliant Ultraviolet 737 is covered by one or more of the following US patents: 8,110,673; 8,158,444; 8,227,187; 8,575,303; 8,354,239.
6. BD Horizon Brilliant Stain Buffer is covered by one or more of the following US patents: 8,110,673; 8,158,444; 8,575,303; 8,354,239.
7. Please refer to <http://regdocs.bd.com> to access safety data sheets (SDS).
8. Please refer to www.bdbiosciences.com/us/s/resources for technical protocols.

References

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