Technical Data Sheet

BV605 Hamster Anti-Mouse CD11c

Product Information

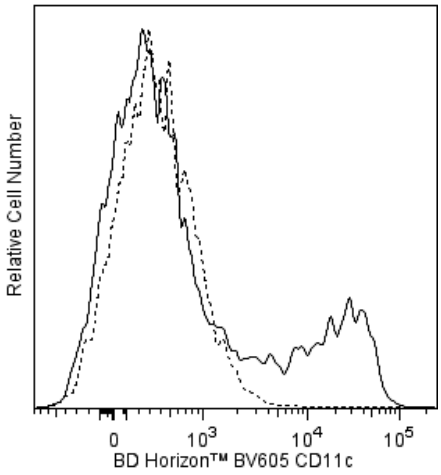
Material Number:	**563057**
Alternate Name:	Cd11c; Itgax; Integrin alpha-X; Integrin αX; Cr4; Complement receptor 4
Size:	50 µg
Concentration:	0.2 mg/ml
Clone:	HL3
Immunogen:	C57BL/6 Mouse Intestinal Intraepithelial Lymphocytes
Isotype:	Armenian Hamster IgG1, λ2
Reactivity:	QC Testing: Mouse
Storage Buffer:	Aqueous buffered solution containing BSA and ≤0.09% sodium azide.

Description

The HL3 monoclonal antibody specifically binds to the integrin αx chain of gp150, 95 (CD11c/CD18). CD11c is expressed on dendritic cells, CD4- CD8+ intestinal intraepithelial lymphocytes (IEL) and some NK cells. It is upregulated on IEL and lymph-node T cells following *in vivo* activation. Cells of the monocyte/macrophage lineage have been reported to express low levels of CD11c. CD11c plays a role in binding of iC3b.

This antibody is conjugated to BD Horizon BV605 which is part of the BD Horizon Brilliant™ Violet family of dyes. With an Ex Max of 407-nm and Em Max of 602-nm, BD Horizon BV605 can be excited by a violet laser and detected with a standard 610/20-nm filter set. BD Horizon BV605 is a tandem fluorochrome of BD Horizon BV421 and an acceptor dye with an Em max at 605-nm. Due to the excitation of the acceptor dye by the green (532 nm) and yellow-green (561 nm) lasers, there will be significant spillover into the PE and BD Horizon PE-CF594 detectors off the green or yellow-green lasers. BD Horizon BV605 conjugates are very bright, often exhibiting brightness equivalent to PE conjugates and can be used as a third color off of the violet laser.

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).



Flow cytometric analysis of CD11c expression on mouse dendritic cells. *C57BL/6 mouse splenocytes were cultured with recombinant mouse GM-CSF (Cat. No.554586; 5 ng/ml) overnight. The cells were then harvested and stained with BD Horizon™ BV605 Hamster IgG1, λ1 Isotype Control (Cat. No. 563054; dashed line histogram) or BD Horizon™ BV605 Hamster anti-Mouse CD11c antibody (Cat. No. 563057; solid line histogram). The fluorescence histograms were derived from events with the forward and side light-scatter characteristics of viable dendritic cells. Flow cytometric analysis was performed using a BD LSRFortessa™ Cell Analyzer 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 with BD Horizon™ BV605 under optimum conditions, and unconjugated antibody and free BD Horizon™ BV605 were removed.

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Application Notes

Application

Flow cytometry	Routinely Tested

Suggested Companion Products

Catalog Number	Name	Size	Clone
563054	BV605 Hamster IgG1, λ1 Isotype Control	50 µg	G235-2356
554586	Recombinant Mouse GM-CSF	10 µg	(none)
563794	Brilliant Stain Buffer	5 mL	(none)

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
3. An isotype control should be used at the same concentration as the antibody of interest.
4. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.
5. 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.
6. 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.
7. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at www.bdbiosciences.com/colors.
8. Although every effort is made to minimize the lot-to-lot variation in the efficiency of the fluorochrome energy transfer, differences in the residual emission from BD Horizon™ BV421 may be observed. Therefore, we recommend that individual compensation controls be performed for every BD Horizon™ BV605 conjugate.
9. Although hamster immunoglobulin isotypes have not been well defined, BD Biosciences Pharmingen has grouped Armenian and Syrian hamster IgG monoclonal antibodies according to their reactivity with a panel of mouse anti-hamster IgG mAbs. A table of the hamster IgG groups, Reactivity of Mouse Anti-Hamster Ig mAbs, may be viewed at http://www.bdbiosciences.com/documents/hamster_chart_11x17.pdf.
10. CF™ is a trademark of Biotium, Inc.

References

Barclay NA, Brown MH, Birkeland ML, et al, ed. *The Leukocyte Antigen FactsBook.* San Diego, CA: Academic Press; 1997. (Biology)

Burt BM, Plitas G, Stableford JA, Nguyen HM, Bamboat ZM, Pillarisetty VG, DeMatteo RP. CD11c identifies a subset of murine liver natural killer cells that responds to adenoviral hepatitis. *J Leukoc Biol.* 2008; 84(4):1039-1046. (Clone-specific: Flow cytometry)

Gao JX, Liu X, Wen J, et al. Differentiation of monocytic cell clones into CD8 alpha+ dendritic cells (DC) suggests that monocytes can be direct precursors for both CD8 alpha+ and CD8 alpha- DC in the mouse. *J Immunol.* 2003; 170(12):5927-5935. (Biology)

Huleatt JW, Lefrancois L. Antigen-driven induction of CD11c on intestinal intraepithelial lymphocytes and CD8+ T cells in vivo. *J Immunol.* 1995; 154(11):5684-5693. (Immunogen: Flow cytometry, Immunoprecipitation)

Maraskovsky E, Brasel K, Teepe M, et al. Dramatic increase in the numbers of functionally mature dendritic cells in Flt3 ligand-treated mice: multiple dendritic cell subpopulations identified. *J Exp Med.* 1996; 184(5):1953-1962. (Biology)

Pulendran B, Lingappa J, Kennedy MK, et al. Developmental pathways of dendritic cells in vivo: distinct function, phenotype, and localization of dendritic cell subsets in FLT3 ligand-treated mice. *J Immunol.* 1997; 159(5):2222-2231. (Biology)

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