Technical Data Sheet

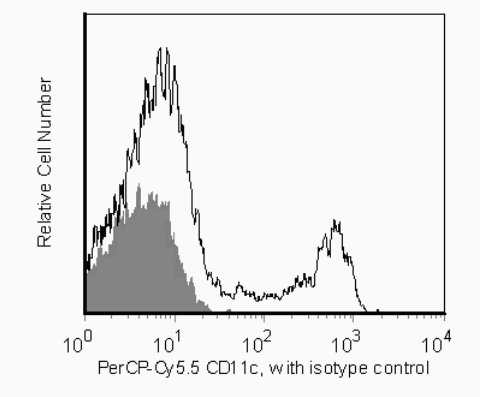
PerCP-Cy™5.5 Hamster Anti-Mouse CD11c

Product Information

Material Number:	**560584**
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 ≤0.09% sodium azide.

Description

The HL3 monoclonal antibody specifically binds to the integrin αx chain of gp150, 95 (CD11c/CD18) which is expressed on dendritic cells and CD4- CD8+ intestinal intraepithelial lymphocytes (IEL) and is upregulated on IEL and lymph-node T cells following *in vivo* activation. CD11c is also found on human NK cells. Although its expression on mouse NK cells is not published, we have detected CD11c on mouse splenic NK cells. Cells of the monocyte/macrophage lineage have been reported to express low levels of CD11c. CD11c plays a role in binding of iC3b.



Flow cytometric analysis of CD11c on mouse dendritic cells. *C57BL/6 splenocytes treated with 5 ng/mL GM-CSF were stained either with a PerCP-Cy™5.5 Hamster IgG1, λ1 isotype control (shaded) or with the PerCP-Cy™5.5 Hamster Anti-Mouse CD11c antibody (unshaded). Histograms were derived from gated events based on light scattering characteristics for dendritic cells. Flow cytometry was performed on a BD™ LSR II flow cytometry 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 PerCP-Cy5.5 under optimum conditions, and unconjugated antibody and free PerCP-Cy5.5 were removed. Storage of PerCP-Cy5.5 conjugates in unoptimized diluent is not recommended and may result in loss of signal intensity.

Application Notes

Application

Flow cytometry	Routinely Tested

Suggested Companion Products

Catalog Number	Name	Size	Clone
560554	PerCP-Cy™5.5 Hamster IgG1, λ1 Isotype Control	0.1 mg	G235-2356
554586	Recombinant Mouse GM-CSF	10 µg	(none)
553141	Purified Rat Anti-Mouse CD16/CD32 (Mouse BD Fc Block™)	0.1 mg	2.4G2

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. An isotype control should be used at the same concentration as the antibody of interest.
3. 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.

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4. 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/pharmingen/hamster_chart_11x17.pdf.
5. This PerCP-conjugated product is sold under license to the following patent: US Patent No. 4,876,190.
6. Cy is a trademark of Amersham Biosciences Limited. This conjugated product is sold under license to the following patents: US Patent Nos. 5,486,616; 5,569,587; 5,569,766; 5,627,027.
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8. PerCP-Cy5.5 is optimized for use with a single argon ion laser emitting 488-nm light. Because of the broad absorption spectrum of the tandem fluorochrome, extra care must be taken when using dual-laser cytometers, which may directly excite both PerCP and Cy5.5™. We recommend the use of cross-beam compensation during data acquisition or software compensation during data analysis.
9. PerCP-Cy5.5–labelled antibodies can be used with FITC- and R-PE–labelled reagents in single-laser flow cytometers with no significant spectral overlap of PerCP-Cy5.5, FITC, and R-PE fluorescence.
10. 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.
11. For fluorochrome spectra and suitable instrument settings, please refer to our Fluorochrome Web Page at www.bdbiosciences.com/colors.
12. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.

References

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: Immunoprecipitation)

Larson RS, Springer TA. Structure and function of leukocyte integrins. *Immunol Rev.* 1990; 114:181-217. (Biology)

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)

Metlay JP, Witmer-Pack MD, Agger R, Crowley MT, Lawless D, Steinman RM. The distinct leukocyte integrins of mouse spleen dendritic cells as identified with new hamster monoclonal antibodies. *J Exp Med.* 1990; 171(5):1753-1771. (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)