

Technical Data Sheet

APC-R700 Armenian Hamster Anti-Mouse CD11c

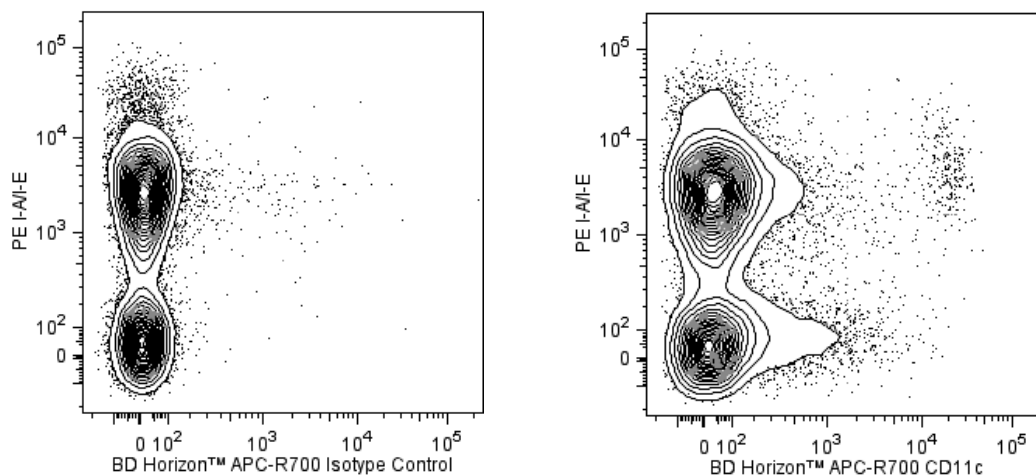
Product Information

| | |
|-------------------------|--|
| Material Number: | 565871 |
| Alternate Name: | Itgax; Integrin alpha-X; Integrin α X; ITAX; CR4; Complement Receptor 4 |
| Size: | 25 μ g |
| Concentration: | 0.2 mg/ml |
| Clone: | N418 |
| Immunogen: | Mouse Dendritic Cells |
| Isotype: | Armenian Hamster IgG2 |
| Reactivity: | QC Testing: Mouse |
| Storage Buffer: | Aqueous buffered solution containing protein stabilizer and \leq 0.09% sodium azide. |

Description

The N418 monoclonal antibody specifically binds to CD11c, the Integrin alpha X (Integrin α X, Itgax) chain of the heterodimeric gp150, 95 (CD11c/CD18, α X β 2) integrin that forms the complement receptor 4 (CR4). CD11c is a 150 kDa type I transmembrane glycoprotein that is expressed on dendritic cells, CD4-CD8+ intestinal intraepithelial lymphocytes (IEL), and some NK cells and T cells. CD11c expression is upregulated on IEL and T cells following activation. Cells of the monocyte/macrophage lineage have been reported to express low levels of CD11c. The CD11c/CD18 integrin can bind to several ligands including iC3b, fibrinogen, and CD54. This integrin reportedly plays important roles in phagocytosis and in mediating cellular interactions during inflammation.

This antibody was conjugated to BD Horizon APC-R700, which has been developed exclusively by BD Biosciences as a better alternative to Alexa Fluor® 700. APC-R700 excites and emits at similar wavelengths to Alexa Fluor® 700 yet exhibits significantly improved brightness. This dye can be excited by the red laser and detected with the same filter set as Alexa Fluor® (eg, 730/45-nm filter).



Two-color flow cytometric analysis of CD11c expression on C57BL/6 mouse splenic leucocytes. Mouse splenic leucocytes were preincubated with Purified Rat Anti-Mouse CD16/CD32 antibody (Mouse BD Fc Block™) (Cat. No. 553141/553142). The cells were then stained with PE Rat Anti-Mouse I-A/I-E antibody (Cat. No. 557000/562010) and either BD Horizon™ APC-R700 Hamster IgG2, λ Isotype Control (Cat. No. 565777; Left Plot) or BD Horizon APC-R700 Armenian Hamster Anti-Mouse CD11c antibody (Cat. No. 565871/565872; Right Plot). Two-color flow cytometric contour plots showing the correlated expression of CD11c (or Ig Isotype control staining) versus I-A/I-E were derived from gated events with the forward and side light-scatter characteristics of viable leucocytes. 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 with BD Horizon APC-R700 under optimum conditions, and unconjugated antibody and free BD Horizon APC-R700 were removed.

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Application Notes

Application

Flow cytometry

Routinely Tested

Suggested Companion Products

| Catalog Number | Name | Size | Clone |
|----------------|--|------------|-------------|
| 565777 | APC-R700 Hamster IgG2, λ Isotype Control | 0.1 mg | Ha4/8 |
| 553141 | Purified Rat Anti-Mouse CD16/CD32 (Mouse BD Fc Block™) | 0.1 mg | 2.4G2 |
| 553142 | Purified Rat Anti-Mouse CD16/CD32 (Mouse BD Fc Block™) | 0.5 mg | 2.4G2 |
| 555899 | Lysing Buffer | 100 mL | (none) |
| 557000 | PE Rat Anti-Mouse I-A/I-E | 0.1 mg | M5/114.15.2 |
| 562010 | PE Rat Anti-Mouse I-A/I-E | 25 μ g | M5/114.15.2 |
| 565872 | APC-R700 Armenian Hamster Anti-Mouse CD11c | 0.1 mg | N418 |
| 554656 | Stain Buffer (FBS) | 500 mL | (none) |
| 554657 | Stain Buffer (BSA) | 500 mL | (none) |

Product Notices

1. Please refer to www.bdbiosciences.com/pharming/en/protocols for technical protocols.
2. Alexa Fluor® is a registered trademark of Molecular Probes, Inc., Eugene, OR.
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. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
6. An isotype control should be used at the same concentration as the antibody of interest.

References

Crowley MT, Inaba K, Witmer-Pack MD, Gezelter S, Steinman RM. Use of the fluorescence activated cell sorter to enrich dendritic cells from mouse spleen. *J Immunol Methods*. 1990; 133(1):55-66. (Clone-specific: Flow cytometry, Fluorescence activated cell sorting)

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. (Immunogen: Flow cytometry, Immunohistochemistry, Immunoprecipitation)

Sadhu C, Ting HJ, Lipsky B, et al. CD11c/CD18: novel ligands and a role in delayed-type hypersensitivity. *J Leukoc Biol*. 2007; 81(6):1395-1403. (Clone-specific: Blocking)

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