

Technical Data Sheet

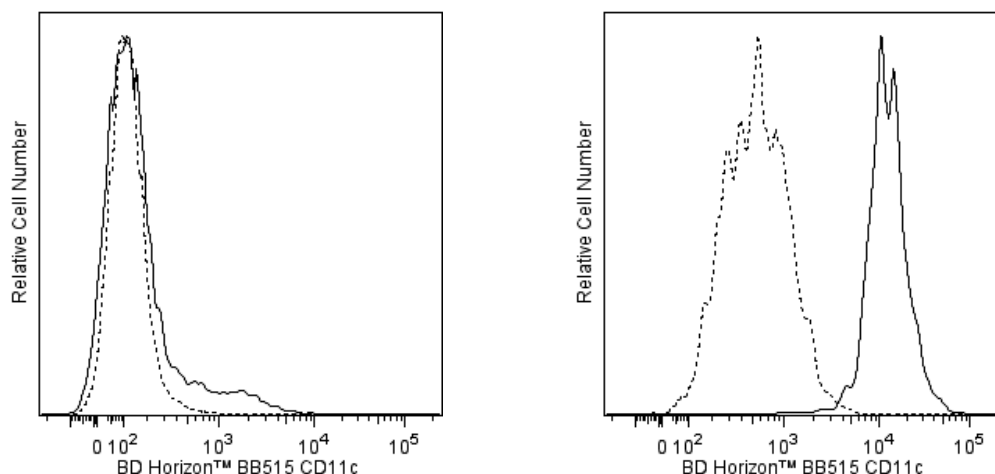
BB515 Mouse Anti-Human CD11c**Product Information**

| | |
|-------------------------|--|
| Material Number: | 564491 |
| Alternate Name: | ITGAX; AlphaX integrin chain; Axb2; Integrin alpha-X; CR4; Leu M5; SLEB6 |
| Size: | 25 Tests |
| Vol. per Test: | 5 µl |
| Clone: | B-ly6 |
| Immunogen: | Spleen Cells from Human with Hairy Cell Leukemia |
| Isotype: | Mouse (BALB/c) IgG1, κ |
| Reactivity: | QC Testing: Human |
| Workshop: | IV N012 |
| Storage Buffer: | Aqueous buffered solution containing ≤0.09% sodium azide. |

Description

The B-ly6 monoclonal antibody specifically binds to the 150 kDa adhesion glycoprotein CD11c (p150, integrin α chain). CD11c is expressed on dendritic cells, monocytes, macrophages, granulocytes, NK cells and subsets of B and T cells. It associates with CD18 to form the CD11c/CD18 complex that binds fibrinogen and has been reported to be a receptor for iC3b and ICAM-1. Reports indicate that CD11c/CD18 plays a role as an adhesion molecule that mediates cellular binding to ligands expressed on stimulated epithelium and endothelium.

The antibody was conjugated to BD Horizon BB515 which is part of the BD Horizon Brilliant™ Blue family of dyes. With an Ex Max near 490 nm and an Em Max near 515 nm, BD Horizon BB515 can be excited by the blue laser (488 nm) laser and detected with a 530/30 nm filter. This dye has been exclusively developed by BD Biosciences and is up to seven times brighter than FITC with less spillover into the PE channel. Due to similar excitation and emission properties, BB515, FITC, and Alexa Fluor® 488 cannot be used simultaneously. It is not recommended to use BB515 in cocktails that include Streptavidin conjugates as it may cause high background.



Flow cytometric analysis of CD11c expression on human peripheral blood lymphocytes and monocytes. Human whole blood was stained with APC Mouse Anti-Human CD14 antibody (Cat. No. 555399/561708/561383) and either BD Horizon™ BB515 Mouse IgG1, κ Isotype Control (Cat. No. 564416; dashed line histogram) or BD Horizon BB515 Mouse Anti-Human CD11c antibody (Cat. No. 564490/564491; solid line histogram). The erythrocytes were lysed with BD FACS™ Lysing Solution (Cat. No. 349202). The fluorescence histograms were derived from events with the forward and side light-scatter characteristics of intact lymphocytes (Left Panel) or CD14+ monocytes (Right Panel). 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™ BB515 under optimum conditions and unconjugated antibody was removed.

Application Notes**Application**

| | |
|----------------|------------------|
| Flow cytometry | Routinely Tested |
|----------------|------------------|

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Recommended Assay Procedure:

BD™ CompBeads can be used as surrogates to assess fluorescence spillover (Compensation). When fluorochrome conjugated antibodies are bound to 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 CompBead to ensure that BD Comp beads are appropriate for your specific cellular application.

For optimal results, it is recommended to perform 2 washes after staining with antibodies. Cells may be prepared, stained with antibodies and washed twice with wash buffer per established protocols for immunofluorescence staining, prior to acquisition on a flow cytometer. Performing fewer than the recommended wash steps may lead to increased spread of the negative population.

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).

Suggested Companion Products

| Catalog Number | Name | Size | Clone |
|----------------|-------------------------------------|------------|--------|
| 564416 | BB515 Mouse IgG1, κ Isotype Control | 100 µg | X40 |
| 564490 | BB515 Mouse Anti-Human CD11c | 100 Tests | B-ly6 |
| 349202 | BD FACSTM Lysing Solution | 100 mL | (none) |
| 555899 | Lysing Buffer | 100 mL | (none) |
| 554656 | Stain Buffer (FBS) | 500 mL | (none) |
| 554657 | Stain Buffer (BSA) | 500 mL | (none) |
| 561708 | APC Mouse Anti-Human CD14 | 25 Tests | M5E2 |
| 561383 | APC Mouse Anti-Human CD14 | 50 Tests | M5E2 |
| 555399 | APC Mouse Anti-Human CD14 | 100 Tests | M5E2 |
| 563794 | Brilliant Stain Buffer | 100 Tests | (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-µl 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 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.
6. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.

References

- Knapp W. W. Knapp .. et al., ed. *Leucocyte typing IV : white cell differentiation antigens*. Oxford New York: Oxford University Press; 1989:1-1182. (Clone-specific: Flow cytometry)
- Stacker SA, Springer TA. Leukocyte integrin P150.95 (CD11c/CD18) functions as an adhesion molecule binding to a counter-receptor on stimulated endothelium. *J Immunol*. 1991; 146(2):648-655. (Clone-specific: ELISA)
- Visser L, Shaw A, Slupsky J, Vos H, Poppema S. Monoclonal antibodies reactive with hairy cell leukemia. *Blood*. 1989; 74(1):320-325. (Immunogen: Immunocytochemistry (cytospins), Immunohistochemistry, Immunoprecipitation)
- Zola H. *Leukocyte and stromal cell molecules : the CD markers*. Hoboken, N.J.: Wiley-Liss; 2007(Biology)