

## Technical Data Sheet

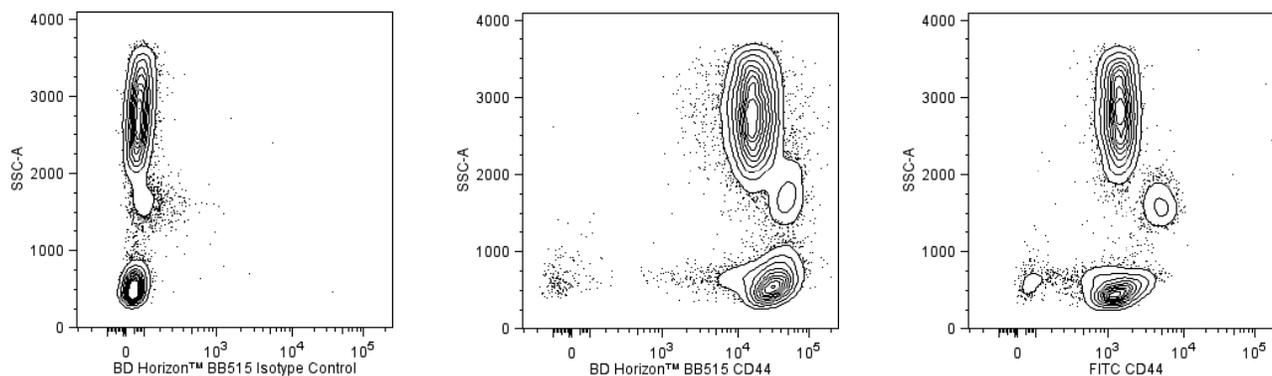
**BB515 Mouse Anti-Human CD44****Product Information**

<b>Material Number:</b>	<b>564582</b>
<b>Alternate Name:</b>	Phagocytic glycoprotein 1; Pgp-1; H-CAM; Hermes; ECMR III; HUTCH-1
<b>Size:</b>	100 Tests
<b>Vol. per Test:</b>	5 µl
<b>Clone:</b>	G44-26 (also known as C26)
<b>Isotype:</b>	Mouse IgG2b, κ
<b>Reactivity:</b>	QC Testing: Human
<b>Workshop:</b>	VI A092
<b>Storage Buffer:</b>	Aqueous buffered solution containing ≤0.09% sodium azide.

**Description**

The G44-26 monoclonal antibody specifically binds to the 80-95 kDa glycosylated type I transmembrane protein, CD44, also known as phagocytic glycoprotein-1 (Pgp-1). CD44 is the receptor for hyaluronic acid. CD44 is expressed on leucocytes, erythrocytes, epithelial cells and weakly on platelets. CD44 is also called extracellular matrix receptor type III and has functional roles in cell migration, lymphocyte homing and adhesion during hematopoiesis and lymphocyte activation. This antibody recognizes epitope 1 of CD44 antigen according to the HLDA workshop studies.

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.



**Two-parameter flow cytometric analysis of CD44 expression on human peripheral blood leucocytes - Staining comparisons between BD Horizon™ BB515- and FITC-conjugated antibodies.** Human whole blood was stained with either BD Horizon BB515 Mouse IgG2b, κ Isotype Control (Cat. No. 564510; Left Panel) or BD Horizon BB515 Mouse Anti-Human CD44 antibody (Cat. No. 564582/564583; Middle Panel). Alternatively, cells were stained with FITC Anti-Human CD44 antibody (Cat. No. 560977/555478; Right Panel). Erythrocytes were lysed with BD FACS™ Lysing Solution (Cat. No. 349202). Two-parameter flow cytometric contour plots showing the correlated expression of CD44 (or Ig Isotype control staining) versus side light-scatter characteristics were derived from gated events with the forward and side light-scatter characteristics of intact leucocyte populations. 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
----------------	------------------

**BD Biosciences**

bdbiosciences.com

United States 877.232.8995 Canada 866.979.9408 Europe 32.2.400.98.95 Japan 0120.8555.90 Asia Pacific 65.6861.0633 Latin America/Caribbean 55.11.5185.9995

For country contact information, visit [bdbiosciences.com/contact](http://bdbiosciences.com/contact)

*Conditions: The information disclosed herein is not to be construed as a recommendation to use the above product in violation of any patents. BD Biosciences will not be held responsible for patent infringement or other violations that may occur with the use of our products. Purchase does not include or carry any right to resell or transfer this product either as a stand-alone product or as a component of another product. Any use of this product other than the permitted use without the express written authorization of Becton, Dickinson and Company is strictly prohibited.*

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Not for resale.  
© 2017 BD. BD, the BD Logo and all other trademarks are property of Becton, Dickinson and Company.



### 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 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).

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.

### 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)
564510	BB515 Mouse IgG2b, κ Isotype Control	50 µg	27-35
564583	BB515 Mouse Anti-Human CD44	25 Tests	G44-26
349202	BD FACSTM Lysing Solution	100 mL	(none)
555899	Lysing Buffer	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  $1 \times 10^6$  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](http://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.regdocs.bd.com](http://www.regdocs.bd.com) to access safety data sheets (SDS).
7. Please refer to [www.bdbiosciences.com/pharmingen/protocols](http://www.bdbiosciences.com/pharmingen/protocols) for technical protocols.

### References

- Patel DD, Liao HX, Haynes BF. CD44 workshop panel report. In: Kishimoto T, Tadimitsu Kishimoto .. et al., ed. *Leucocyte typing VI : white cell differentiation antigens : proceedings of the sixth international workshop and conference held in Kobe, Japan, 10-14 November 1996*. New York: Garland Pub.; 1997:373-375. (Clone-specific; Blocking, Flow cytometry)
- Galandrini R, Galluzzo E, Albi N, Grossi CE, Velardi A. Hyaluronate is costimulatory for human T cell effector functions and binds to CD44 on activated T cells. *J Immunol*. 1994; 153(1):21-31. (Biology)
- Günther U. CD44: a multitude of isoforms with diverse functions. *Curr Top Microbiol Immunol*. 1993; 184:47-63. (Biology)
- Schlossman SF, Stuart F, Schlossman .. et al., ed. *Leucocyte typing V : white cell differentiation antigens : proceedings of the fifth international workshop and conference held in Boston, USA, 3-7 November, 1993*. Oxford: Oxford University Press; 1995(Biology)
- Stamenkovic I, Amiot M, Pesando JM, Seed B. A lymphocyte molecule implicated in lymph node homing is a member of the cartilage link protein family. *Cell*. 1989; 56(6):1057-1062. (Biology)