

## Technical Data Sheet

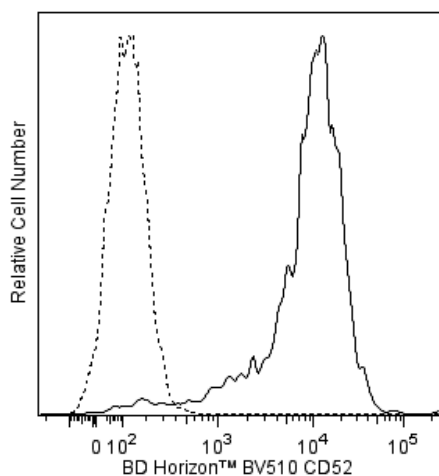
**BV510 Mouse Anti-Human CD52****Product Information**

<b>Material Number:</b>	<b>563305</b>
<b>Alternate Name:</b>	Cambridge pathology 1 Ag; CAMPATH-1; Epididymal secretory protein E5; HE5
<b>Size:</b>	50 tests
<b>Vol. per Test:</b>	5 µl
<b>Clone:</b>	4C8
<b>Immunogen:</b>	Human T Lymphocytes
<b>Isotype:</b>	Mouse (BALB/c) IgG3, κ
<b>Reactivity:</b>	QC Testing: Human
<b>Storage Buffer:</b>	Aqueous buffered solution containing BSA and ≤0.09% sodium azide.

**Description**

The 4C8 monoclonal antibody specifically binds to CD52 which is also known as Cambridge pathology 1 antigen (CAMPATH-1) or Human epididymis-specific protein 5 (HE5). CD52 is a highly N-glycosylated, 25-29 kDa protein whose C-terminus is glycosylphosphatidylinositol anchored in the membrane. It is highly expressed on the surface of thymocytes and mature lymphocytes but not on their stem cell precursors. It is also expressed on monocytes, dendritic cells, eosinophils and epithelial cells of the epididymis and seminal vesicles but not on neutrophils, plasma cells, platelets or erythrocytes. Although its functional role is not well characterized, the CD52 antigen serves as an exquisitely sensitive target antigen for antibody and complement-mediated lysis of CD52-positive cells. Anti-CD52 antibodies are being used clinically to remove lymphocytes from transplanted bone marrow cell preparations and in the treatment of some malignant diseases.

The antibody was conjugated to BD Horizon™ BV510 which is part of the BD Horizon™ Brilliant Violet™ family of dyes. With an Ex Max of 405-nm and Em Max at 510-nm, BD Horizon™ BV510 can be excited by the violet laser and detected in the BD Horizon™ V500 (525/50-nm) filter set. BD Horizon™ BV510 conjugates are useful for the detection of dim markers off the violet laser.



**Flow cytometric analysis of human CD52 expression on human peripheral blood lymphocytes.** Whole blood was stained with either BD Horizon™ BV510 Mouse IgG3, κ Isotype Control (Cat. No. 563273; dashed line histogram) or BD Horizon™ BV510 Mouse Anti-Human CD52 antibody (Cat. No. 563305; solid line histogram). Erythrocytes were lysed with BD Pharm Lyse™ Lysing Buffer (Cat. No. 555899). The fluorescence histograms were derived from gated events with the forward and side light-scatter characteristics of viable lymphocytes. 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™ BV510 under optimum conditions, and unconjugated antibody and free BD Horizon™ BV510 were removed.

**Application Notes****Application**

Flow cytometry

Routinely Tested

**BD Biosciences**

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## Suggested Companion Products

<u>Catalog Number</u>	<u>Name</u>	<u>Size</u>	<u>Clone</u>
554656	Stain Buffer (FBS)	500 ml	(none)
563273	BV510 Mouse IgG3, $\kappa$ Isotype Control	50 $\mu$ g	J606
555899	Lysing Buffer	100 ml	(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- $\mu$ l experimental sample (a test).
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/pharming/en/protocols](http://www.bdbiosciences.com/pharming/en/protocols) for technical protocols.
5. 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.
6. 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).
7. Brilliant Violet™ 510 is a trademark of Sirigen.

## References

Masuyama J, Yoshio T, Suzuki K, et al. Characterization of the 4C8 antigen involved in transendothelial migration of CD26(hi) T cells after tight adhesion to human umbilical vein endothelial cell monolayers. *J Exp Med.* 1999; 189(6):979-990. (Immunogen: Blocking, Flow cytometry, Stimulation, Western blot)  
Zola H, Swart B, Nicholson I, Voss E. *Leukocyte and Stromal Cell Molecules. The CD Markers.* Hoboken, New Jersey: John Wiley & Sons, Inc.; 2007:1-581. (Biology)

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