Technical Data Sheet

V500 Mouse Anti-NHP CD45

Product Information

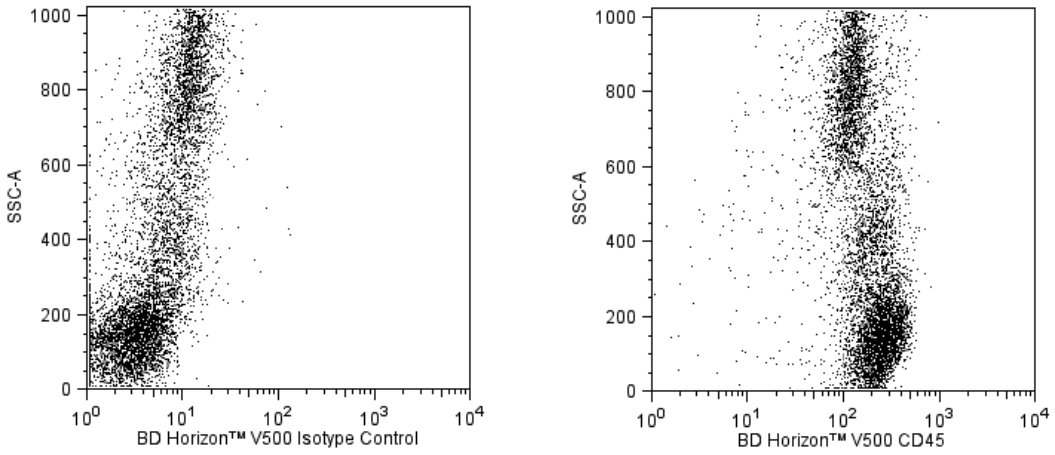
Material Number:	**561489**
Alternate Name:	Pan Leukocyte, NHP-specific
Size:	50 tests
Vol. per Test:	5 µl
Clone:	D058-1283
Immunogen:	Rhesus peripheral whole blood
Isotype:	Mouse IgG1, κ
Reactivity:	QC Testing: Rhesus or Cynomolgus Macaque or Baboon
Storage Buffer:	Aqueous buffered solution containing protein stabilizer, glycerol and ≤0.09% sodium azide.

Description

D058-1283 is a CD45 monoclonal antibody specific for non-human primate leukocytes, developed using Rhesus peripheral whole blood as immunogen. It does not cross react with human leukocytes. This antibody reacts with Baboon, Rhesus and Cynomolgus Macaque leukocytes in a similar pattern as seen with CD45 binding to the Leukocyte Common Antigen on human cells. Immunophenotypic analysis shows that D058-1283 binds to lymphocytes, monocytes and granulocytes of non-human primate blood samples. This antibody is able to block the binding of monoclonal antibody TÜ116; a reported anti-human CD45 that cross-reacts with non-human primate leukocytes. In Western blot analysis D058-1283 identifies a band of approximate molecular weight 180-200 kDa.

The antibody is conjugated to BD Horizon™ V500, which has been developed for use in multicolor flow cytometry experiments and is available exclusively from BD Biosciences. It is excited by the Violet laser with an Ex max of 415 nm and Em Max at 500 nm. BD Horizon V500 conjugates emit at a similar wavelength to Amcyan yet exhibit reduced spillover into the FITC channel. For more information on BD Horizon V500, visit bdbiosciences.com/colors.

When compensating dyes in this spectral range (such as Horizon™ V500 and AmCyan), the most accurate compensation can be obtained using single stained cellular controls. Due to spectral differences between cells and beads in this channel, using BD CompBeads can result in spillover errors for V500 and AmCyan reagents. Therefore, the use of BD CompBeads or BD CompBeads Plus to determine spillover values for these reagents is not recommended. Different V500 reagents (e.g. CD4 vs. CD45) can have slightly different fluorescence spillover therefore, it may also be necessary to use clone specific compensation controls when using these reagents.



Multiparameter flow cytometric analysis of CD45 expression on Rhesus macaque peripheral blood leukocytes.
Rhesus macaque whole blood was stained with a BD Horizon™ V500 Mouse IgG1, κ Isotype Control (Cat. No. 560787; Left Panel) or with BD Horizon™ V500 Mouse Anti-NHP CD45 antibody (Cat. No. 561489; Right Panel). The erythrocytes were lysed with BD PharmLyse™ Lysing Buffer (Cat. No. 555899). Two-parameter flow cytometric dot blots showing the correlated expression of CD45 (or Ig isotype control staining) versus side scattered-light characteristics were derived from events gated for all viable leukocytes. Flow cytometry was performed using a BD™ LSR II Flow Cytometer System.

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Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

The antibody was conjugated with BD Horizon™ V500 under optimum conditions, and unreacted BD Horizon™ V500 was removed.

Store undiluted at 4°C and protected from prolonged exposure to light. Do not freeze.

Application Notes

Application

Flow cytometry	Routinely Tested

Suggested Companion Products

Catalog Number	Name	Size	Clone
560787	V500 Mouse IgG1, κ Isotype Control	0.1 mg	X40
555899	Lysing Buffer	100 ml	(none)
554656	Stain Buffer (FBS)	500 ml	(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. BD Horizon™ V500 has a maximum absorption of 415 nm and maximum emission of 500 nm. Before staining with this reagent, please confirm that your flow cytometer is capable of exciting the fluorochrome and discriminating the resulting fluorescence.
4. 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.
5. For fluorochrome spectra and suitable instrument settings, please refer to our Fluorochrome Web Page at www.bdbiosciences.com/colors.
6. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.

References

Kishihara K, Penninger J, Wallace VA, et al. Normal B lymphocyte development but impaired T cell maturation in CD45-exon6 protein tyrosine phosphatase-deficient mice. *Cell.* 1993; 74(1):143-156. (Biology)

Knapp W, Dorken B, Rieber EP, et al, ed. *Leucocyte Typing IV*. New York: Oxford University Press; 1989:1-1208. (Biology)

Reimann KA, Waite BC, Lee-Parritz DE, et al. Use of human leukocyte-specific monoclonal antibodies for clinically immunophenotyping lymphocytes of rhesus monkeys. *Cytometry.* 1994; 17(1):102-108. (Biology)