Technical Data Sheet

**BV605 Mouse Anti-NHP CD45**

**Product Information**

- **Material Number:** 564098
- **Alternate Name:** Pan Leukocyte, NHP-specific; PTPRC; LCA; L-CA; Leukocyte Common Ag
- **Size:** 50 Tests
- **Vol. per Test:** 5 µl
- **Clone:** D058-1283
- **Immunogen:** Rhesus peripheral whole blood
- **Isotype:** Mouse IgG1, κ
- **Reactivity:** QC Testing: Rhesus, Cynomolgus, Baboon
- **Storage Buffer:** Aqueous buffered solution containing BSA and ≤0.09% sodium azide.

**Description**

D058-1283 is a CD45 monoclonal antibody specific for non-human primate leucocytes. It was developed using Rhesus peripheral whole blood as the immunogen. It does not cross-react with human leucocytes. This antibody reacts with baboon, Rhesus and Cynomolgus Macaque leucocytes in a similar pattern to CD45 binding to leukocyte common antigen (LCA) 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 antibody that cross-reacts with nonhuman primate leucocytes. In Western blot analysis, the D058-1283 antibody identifies a 180-200 kDa band.

This antibody is conjugated to BD Horizon BV605 which is part of the BD Horizon Brilliant™ Violet family of dyes. With an Ex Max of 407-nm and Em Max of 602-nm, BD Horizon BV605 can be excited by a violet laser and detected with a standard 610/20-nm filter set. BD Horizon BV605 is a tandem fluorochrome of BD Horizon BV421 and an acceptor dye with an Em max at 605-nm. Due to the excitation of the acceptor dye by the green (532 nm) and yellow-green (561 nm) lasers, there will be significant spillover into the PE and BD Horizon PE-CF594 detectors off the green or yellow-green lasers. BD Horizon BV605 conjugates are very bright, often exhibiting brightness equivalent to PE conjugates and can be used as a third color off of the violet laser.

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**Flow cytometric data**

**Flow cytometric analysis of CD45 expression on Rhesus monkey peripheral blood leucocytes.** Rhesus macaque whole blood was stained with either BD Horizon™ BV605 Mouse IgG1, κ Isotype Control (Cat. No. 562652; Left Panel) or BD Horizon BV605 Mouse Anti-NHP CD45 antibody (Cat. No. 564098; Right Panel). The erythrocytes were lysed with BD FACS™ Lysing Solution (Cat. No. 349202). Two parameter flow cytometric contour plots showing the correlated expression of CD45 (or Ig Isotype control staining) versus side-light scatter (SSC-A) signals were derived from events with the forward light scatter signals 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™ BV605 under optimum conditions, and unconjugated antibody and free BD Horizon™ BV605 were removed.

Application Notes

Recommended Assay Procedure:
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

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<th>Name</th>
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<td>554657</td>
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<td>562652</td>
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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. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
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. Please observe the following precautions: Absorption of visible light can significantly alter the energy transfer occurring in any tandem fluorochrome conjugate; therefore, we recommend that special precautions be taken (such as wrapping vials, tubes, or racks in aluminum foil) to prevent exposure of conjugated reagents, including cells stained with those reagents, to room illumination.
6. Although every effort is made to minimize the lot-to-lot variation in the efficiency of the fluorochrome energy transfer, differences in the residual emission from BD Horizon™ BV421 may be observed. Therefore, we recommend that individual compensation controls be performed for every BD Horizon™ BV605 conjugate.
7. CF™ is a trademark of Biotium, Inc.
8. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at www.bdbiosciences.com/colors.
9. BD Horizon Brilliant Violet 605 is covered by one or more of the following US patents: 8,110,673; 8,158,444; 8,227,187; 8,455,613; 8,575,303; 8,354,239.
10. 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.

References