

Technical Data Sheet

BV711 Mouse Anti-NHP CD45

Product Information

Material Number:	740809
Size:	50 µg
Clone:	D058-1283
Alternative Name:	Pan Leukocyte, NHP-specific; PTPRC; LCA; L-CA; Leukocyte Common Ag
Reactivity:	Rhesus, Cynomolgus, Baboon (Tested in Development)
Isotype:	Mouse IgG1, κ
Immunogen:	Rhesus peripheral whole blood
Application:	Flow cytometry (Qualified)
Concentration:	0.2 mg/ml
Storage Buffer:	Aqueous buffered solution containing ≤0.09% sodium azide.
Regulatory Status:	RUO

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 TÛ116; 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.

The antibody was conjugated to BD Horizon™ BV711 which is part of the BD Horizon Brilliant™ Violet family of dyes. This dye is a tandem fluorochrome of BD Horizon BV421 with an Ex Max of 405-nm and an acceptor dye with an Em Max at 711-nm. BD Horizon BV711 can be excited by the violet laser and detected in a filter used to detect Cy™5.5 / Alexa Fluor® 700-like dyes (eg, 712/20-nm filter). Due to the excitation and emission characteristics of the acceptor dye, there may be moderate spillover into the Alexa Fluor® 700 and PerCP-Cy5.5 detectors. However, the spillover can be corrected through compensation as with any other dye combination.

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 BV711 under optimal conditions that minimize unconjugated dye and antibody.

Recommended Assay Procedure

For optimal and reproducible results, BD Horizon Brilliant Stain Buffer should be used anytime two or more BD Horizon Brilliant dyes (including BD OptiBuild Brilliant reagents) 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).

Suggested Companion Products

Catalog Number	Name	Size	Clone
563044	BV711 Mouse IgG1, κ Isotype Control	50 µg	X40
554656	Stain Buffer (FBS)	500 mL	
554657	Stain Buffer (BSA)	500 mL	
563794	Brilliant Stain Buffer	100 Tests	
555899	Lysing Buffer	100 mL	
349202	Lysing Solution 10X Concentrate	100 NA	
564219	Human BD Fc Block™	50 mg	

Product Notices

1. This antibody was developed for use in flow cytometry.
2. The production process underwent stringent testing and validation to assure that it generates a high-quality conjugate with consistent performance and specific binding activity. However, verification testing has not been performed on all conjugate lots.
3. Researchers should determine the optimal concentration of this reagent for their individual applications.
4. An isotype control should be used at the same concentration as the antibody of interest.
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.
7. Please refer to www.bdbiosciences.com/us/s/resources for technical protocols.
8. 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.
9. BD Horizon Brilliant Violet 711 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. Cy is a trademark of Amersham Biosciences Limited.
11. Alexa Fluor® is a registered trademark of Life Technologies Corporation.

References

- Brown KN, Trichel A, Barratt-Boyes SM. Parallel loss of myeloid and plasmacytoid dendritic cells from blood and lymphoid tissue in simian AIDS. *J Immunol.* 2007; 178(11):6958-6967.
- Drouet M, Mayol JF, Norol F, et al. Lack of evidence of sustained hematopoietic reconstitution after transplantation of unmanipulated adult liver stem cells in monkeys. *Haematologica.* 2007; 92(2):248-251.
- Reeves RK, Evans TI, Gillis J, et al. Quantification of mucosal mononuclear cells in tissues with a fluorescent bead-based polychromatic flow cytometry assay. *J Immunol Methods.* 2011; 367(1-2):95-98.
- 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.

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