

Technical Data Sheet

BUV563 Mouse Anti-Human CD205

Product Information

Material Number:	748895
Size:	50 µg
Clone:	MMRI-7
Alternative Name:	DEC-205; Lymphocyte Antigen 75; LY75; Ly-75; CLEC13B; GP200-MR6
Reactivity:	Human (Tested in Development)
Isotype:	Mouse IgG1, κ
Application:	Flow cytometry (Qualified)
Concentration:	0.2 mg/ml
Storage Buffer:	Aqueous buffered solution containing ≤0.09% sodium azide.
Regulatory Status:	RUO

Description

The MMRI-7 monoclonal antibody specifically recognizes CD205 which is also known as DEC-205, Lymphocyte antigen 75 (Ly-75), or C-type lectin domain family 13 member B (CLEC13B). CD205 is a ~205 kDa type I transmembrane glycoprotein with C-type lectin external domains. DEC-205 is expressed on myeloid and plasmacytoid dendritic cells, thymic epithelial cells, and at lower levels on monocytes, T cells, B cells, and natural killer (NK) cells. DEC-205 likely functions as an endocytic receptor and is involved in antigen uptake and processing.

The antibody was conjugated to BD Horizon™ BUV563 which is part of the BD Horizon Brilliant™ Ultraviolet family of dyes. This dye is a tandem fluorochrome of BD Horizon BUV395 which has an Ex Max of 348 nm and an acceptor dye. The tandem has an Em Max at 563 nm. BD Horizon BUV563 can be excited by the 355 nm ultraviolet laser. On instruments with a 561 nm Yellow-Green laser, the recommended bandpass filter is 585/15 nm with a 535 nm long pass to minimize laser light leakage. When BD Horizon BUV563 is used with an instrument that does not have a 561 nm laser, a 560/40 nm filter with a 535 nm long pass may be more optimal. Due to the excitation and emission characteristics of the acceptor dye, there may be spillover into the PE and PE-CF594 detectors. However, the spillover can be corrected through compensation as with any other dye combination.

Preparation and Storage Section

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 BUV563 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
612920	BUV563 Mouse IgG1, κ Isotype Control X40 RUO	50 µg	
349202	Lysing Solution 10X Concentrate IVD	100 NA	
564219	Human BD Fc Block™ RUO	50 mg	
554656	Stain Buffer (FBS) RUO	500 mL	
554657	Stain Buffer (BSA) RUO	500 mL	
563794	Brilliant Stain Buffer RUO	100 Tests	
555899	Lysing Buffer RUO	100 mL	

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.

References

- Guo M, Gong S, Maric S, et al. A monoclonal antibody to the DEC-205 endocytosis receptor on human dendritic cells. *Hum Immunol.* 2000 August; 61(8):729-738. (Biology: Flow cytometry).
- Kato M, Khan S, Gonzalez N, et al. Hodgkin's lymphoma cell lines express a fusion protein encoded by intergenically spliced mRNA for the multilectin receptor DEC-205 (CD205) and a novel C-type lectin receptor DCL-1.. *J Biol Chem.* 2003; 278(36):34035-41. (Clone-specific: Flow cytometry).
- Kato M, MacDonald K, Munster D, Clark GJ, Hart DNJ. CD205 (DEC-205) Workshop Panel report. In: Mason D. David Mason .. et al., ed. *Leucocyte typing VII : white cell differentiation antigens : proceedings of the Seventh International Workshop and Conference held in Harrogate, United Kingdom.* Oxford: Oxford University Press; 2002; :298-300.
- Kato M, Neil TK, Clark GJ, Morris CM, Sorg RV, Hart DN. cDNA cloning of human DEC-205, a putative antigen-uptake receptor on dendritic cells. *Immunogenetics.* 1998; 47(6):442-450. (Biology: Flow cytometry).
- Kato M, Neil TK, Fearnley DB, McLellan AD, Vuckovic S, Hart DN. Expression of multilectin receptors and comparative FITC-dextran uptake by human dendritic cells. *Int Immunol.* 2000; 12(11):1511-1519. (Biology: Flow cytometry).

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