

Technical Data Sheet

BV510 Mouse Anti-Human CD206 (MMR)

Product Information

Material Number:	751774
Size:	50 µg
Clone:	15-2 (also known as MR15-2)
Alternative Name:	CLEC13D; MMR; macrophage mannose receptor 1
Reactivity:	Human (Tested in Development)
Isotype:	Mouse BALB/c IgG1, κ
Immunogen:	Purified Human MMR
Application:	Flow cytometry (Qualified)
Concentration:	0.2 mg/ml
Workshop No.:	VII 70802
Storage Buffer:	Aqueous buffered solution containing ≤0.09% sodium azide.
Regulatory Status:	RUO

Description

The 15-2 monoclonal antibody specifically recognizes CD206 which is also known as Macrophage mannose receptor (MMR) or C-type lectin domain family 13 member D (CLEC13D). CD206 (MMR) is a ~175 kDa type I transmembrane glycoprotein that is encoded by MRC1 (Mannose receptor C-type 1) which belongs to the mannose receptor family. The extracellular region of CD206 (MMR) is comprised of an N-terminal cysteine-rich domain, followed by a fibronectin type II domain, eight carbohydrate recognition domains (CRD), a transmembrane segment, and a short cytoplasmic tail. CD206 (MMR) is expressed on human macrophages, immature dendritic cells, and endothelial cells. It is not detected on resting monocytes. CD206 (MMR) can function as a Pattern Recognition Receptor (PRR) since it binds to glycoconjugates containing mannose, fucose, or N-acetylglucosamine that are present on the surface of many microorganisms. This receptor enables macrophages and dendritic cells to bind and internalize microbes and their products through endocytosis and phagocytosis and to participate in innate immunity as well as antigen processing related to antigen presentation for adaptive immune responses.

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.

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 to the dye under optimum conditions that minimize unconjugated dye and antibody.

Recommended Assay Procedure

BD™ CompBeads can be used as surrogates to assess fluorescence spillover (Compensation). When fluorochrome conjugated antibodies are bound to CompBeads, they have spectral properties very similar to cells. However, for some fluorochromes there can be small differences in spectral emissions compared to cells, resulting in spillover values that differ when compared to biological controls. It is strongly recommended that when using a reagent for the first time, users compare the spillover on cells and CompBead to ensure that BD Comp beads are appropriate for your specific cellular application.

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

Catalog Number	Name	Size	Clone
349202	Lysing Solution 10X Concentrate	100 NA	
564219	Human BD Fc Block™	50 mg	
562946	BV510 Mouse IgG1, k 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	
566349	Brilliant Stain Buffer	1000 Tests	
566385	Brilliant Stain Buffer Plus	1000 Tests	

Product Notices

1. 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.
2. Researchers should determine the optimal concentration of this reagent for their individual applications.
3. An isotype control should be used at the same concentration as the antibody of interest.
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 Multicolor Flow Cytometry web page at www.bdbiosciences.com/colors.
6. Please refer to www.bdbiosciences.com/us/s/resources for technical protocols.
7. 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.
8. Please refer to <http://regdocs.bd.com> to access safety data sheets (SDS).
9. BD Horizon Brilliant Violet 510 is covered by one or more of the following US patents: 8,575,303; 8,354,239.

References

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- Zola H, Swart B, Boumsell L, Mason DY. Human Leucocyte Differentiation Antigen nomenclature: update on CD nomenclature. Report of IUIS/WHO Subcommittee.. *J Immunol Methods.* 2003; 275(1-2):1-8. (Clone-specific: Flow cytometry).

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