

Technical Data Sheet

BUV737 Mouse Anti-Human CCR2 (CD192)

Product Information

Material Number:	749075
Size:	50 µg
Clone:	LS132.1D9 (also known as 1D9)
Alternative Name:	CCR2; CD192; CKR2; CC-CKR-2; CMKBR2; MCP-1 receptor; MCP-1-R
Reactivity:	Human (Tested in Development)
Isotype:	Mouse BALB/c IgG2a, κ
Immunogen:	Human CCR2 Transfected Cell Line
Application:	Flow cytometry (Qualified)
Concentration:	0.2 mg/ml
Entrez Gene ID:	729230
Storage Buffer:	Aqueous buffered solution containing ≤0.09% sodium azide.
Regulatory Status:	RUO

Description

The LS132.1D9 (aka, 1D9) monoclonal antibody specifically recognizes C-C chemokine receptor type 2 (CCR2 or CC-CKR-2) which is also known as CD192, CKR2, CMKBR2, or Monocyte chemoattractant protein 1 receptor (MCP-1 Receptor or MCP-1-R). CCR2 (CD192) is a seven-transmembrane, G-protein-coupled, glycoprotein receptor that belongs to the beta chemokine receptor family. It is expressed on basophils, monocytes/macrophages, dendritic cells, activated T cells and B cells. CCR2 (CD192) serves as a receptor for Monocyte chemoattractant protein 1 (MCP-1/CCL2), MCP-2/CCL8, MCP-3/CCL7, and MCP-4/CCL13. CD192 exists in two forms, CD192A and CD192B. The two forms are derived from alternatively spliced variants of a single gene and differ at their intracellular C-terminal ends. CD192 plays an important role in inflammatory responses including monocytic infiltration of tissues associated with certain diseases, eg, atherosclerosis, rheumatoid arthritis, and tumors.

The antibody was conjugated to BD Horizon™ BUV737 which is part of the BD Horizon Brilliant™ Ultraviolet family of dyes. This dye is a tandem fluorochrome of BD Horizon BUV395 with an Ex Max of 348-nm and an acceptor dye with an Em Max at 737-nm. BD Horizon Brilliant BUV737 can be excited by the ultraviolet laser (355 nm) and detected with a 740/35 filter. Due to the excitation of the acceptor dye by other laser lines, there may be significant spillover into channels detecting Alexa Fluor® 700-like dyes (eg, 712/20-nm filter).

Due to spectral differences between labeled cells and beads, using BD™ CompBeads can result in incorrect spillover values when used with BD Horizon BUV737 reagents. Therefore, the use of BD CompBeads or BD CompBeads Plus to determine spillover values for these reagents is not recommended. Different BUV737 reagents (eg, 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.

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 BUV737 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
612765	BUV737 Mouse IgG2a, κ Isotype Control G155-178 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.
9. BD Horizon Brilliant Ultraviolet 737 is covered by one or more of the following US patents: 8,110,673; 8,158,444; 8,227,187; 8,575,303; 8,354,239.

References

Andrew DP, Ruffing N, Kim CH, et al. C-C chemokine receptor 4 expression defines a major subset of circulating nonintestinal memory T cells of both Th1 and Th2 potential. *J Immunol.* 2000; 166(1):103-111. (Clone-specific: Flow cytometry).

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Sica A, Saccani A, Bottazzi B, et al. Defective expression of the monocyte chemotactic protein-1 receptor CCR2 in macrophages associated with human ovarian carcinoma.. *J Immunol.* 2000; 164(2):733-8. (Clone-specific: Flow cytometry).

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