

Technical Data Sheet

BV750 Rat Anti-CD11b

Product Information

Material Number:	746910
Size:	50 µg
Clone:	M1/70
Alternative Name:	Itgam; Integrin alpha-M; Ly-40; Mac-1a; Mac-1 alpha; CR3A; CR-3 alpha chain
Reactivity:	Mouse (Tested in Development)
Isotype:	Rat DA, also known as DA/HA IgG2b, κ
Immunogen:	Mouse Splenic Cells
Application:	Flow cytometry (Qualified)
Concentration:	0.2 mg/ml
Entrez Gene ID:	16409
Storage Buffer:	Aqueous buffered solution containing ≤0.09% sodium azide.
Regulatory Status:	RUO

Description

The M1/70 monoclonal antibody specifically binds to CD11b, also known as Integrin alpha M (Itgam or αM). CD11b is a 170-kDa type 1 transmembrane glycoprotein and belongs to the Integrin alpha chain family. CD11b serves as the alpha chain of the heterodimeric Mac-1 integrin (CD11b/CD18, αMβ2), also known as complement receptor 3 (CR3). Mac-1 mediates adhesion to ICAM-1 (CD54), ICAM-2 (CD102), fibrinogen and binding to C3bi. Mac-1 is expressed at varying levels on granulocytes, macrophages, myeloid-derived dendritic cells, natural killer cells, microglia, and B-1 B lymphocytes. Mac-1 expression is rapidly upregulated on neutrophils after activation, in the same time period that CD62L (L-selectin) is shed from the cell surface. The M1/70 antibody reportedly blocks cell adherence and C3bi binding but does not block cell-mediated lysis. Cross-reaction of the M1/70 antibody with CD11b expressed on human monocytes, polymorphonuclear leukocytes, and NK cells has been reported.

The antibody was conjugated to BD Horizon™ BV750 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 750-nm. BD Horizon Brilliant BV750 can be excited by the violet laser (405 nm) and detected with a 750/30 nm filter with a 740 nm long pass. Due to spectral differences between labeled cells and beads, using BD™ CompBeads can result in incorrect spillover values when used with BD Horizon BV750 reagents. Therefore, the use of BD CompBeads or BD CompBeads Plus to determine spillover values for these reagents is not recommended.

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 BV750 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
553141	Purified Rat Anti-Mouse CD16/CD32 (Mouse BD Fc Block™) 2.4G2 RUO	0.1 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 wwwbdbiosciences.com/colors.
7. Please refer to wwwbdbiosciences.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 750 is covered by one or more of the following US patents: 8,158,444; 8,802,450; 8,575,303; 8,455,613; 8,227,187; 8,841,072; 8,110,673.

References

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