

Technical Data Sheet

BV711 Mouse Anti-Human CD11b

Product Information

Material Number:	740771
Size:	50 µg
Clone:	ICRF44 (also known as 44)
Alternative Name:	MAC-1A; Mac-1; ITGAM; Integrin alpha M; CR3A; CR-3 alpha; Mo1; SLEB6
Isotype:	Mouse IgG1, κ
Immunogen:	Human monocytes
Application:	Flow cytometry (Qualified)
Concentration:	0.2 mg/ml
Workshop No.:	IV M047
Entrez Gene ID:	3684
Storage Buffer:	Aqueous buffered solution containing ≤0.09% sodium azide.
Regulatory Status:	RUO

Description

The ICRF44 monoclonal antibody specifically binds to CD11b, the 165-kDa adhesion glycoprotein that associates with the 95-kDa integrin β2 (CD18) to form the CD11b/CD18 complex, also known as Mac-1 or CR3. CD11b is a type I transmembrane glycoprotein that is encoded by ITGAM (Integrin alpha M). It is expressed on activated lymphocytes, monocytes, granulocytes, and a subset of NK cells. CD11b functions in cell-cell and cell-substrate interactions and is a receptor for iC3b, CD54 (ICAM-1), CD102 (ICAM-2) and CD50 (ICAM-3). This antibody significantly inhibits polymorphonuclear leukocyte aggregation in response to fMLP.

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 to the dye under optimum 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
554656	Stain Buffer (FBS)	500 mL	
563044	BV711 Mouse IgG1, κ Isotype Control	50 µg	X40
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	

564220	Human BD Fc Block™	0.25 mg
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. An isotype control should be used at the same concentration as the antibody of interest.
3. 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.
4. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at www.bdbiosciences.com/colors.
5. 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.
6. 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.
7. Cy is a trademark of GE Healthcare.
8. Please refer to <http://regdocs.bd.com> to access safety data sheets (SDS).
9. Please refer to www.bdbiosciences.com/us/s/resources for technical protocols.

References

David A, Kacher Y, Specks U, Aviram I. Interaction of proteinase 3 with CD11b/CD18 (beta2 integrin) on the cell membrane of human neutrophils. *J Leukoc Biol.* 2003; 74(4):551-557. (Biology: Flow cytometry).

Hogg N, Horton MA. Myeloid antigens: New and previously defined clusters. In: McMichael AJ. A.J. McMichael .. et al., ed. *Leucocyte typing III : white cell differentiation antigens.* Oxford New York: Oxford University Press; 1987; :576-602.

Hogg N, Palmer DG, Revell PA. Mononuclear phagocytes of normal and rheumatoid synovial membrane identified by monoclonal antibodies. *Immunology.* 1985; 56(4):673-681. (Clone-specific: Flow cytometry).

Zola H. *Leukocyte and stromal cell molecules : the CD markers.* Hoboken, N.J.: Wiley-Liss; 2007; .

BD Biosciences

bdbiosciences.com

United States 877.232.8995	Canada 888.268.5430	Europe 32.53.720.550	Japan 0120.8555.90	Asia Pacific 65.6861.0633	Latin America/Caribbean 0800.771.7157
-------------------------------	------------------------	-------------------------	-----------------------	------------------------------	--

For country contact information, visit bdbiosciences.com/contact

Conditions: The information disclosed herein is not to be construed as a recommendation to use the above product in violation of any patents. BD Biosciences will not be held responsible for a patent infringement or other violations that may occur with the use of our products. Purchase does not include or carry any right to resell or transfer this product either as a stand-alone product or as a component of another product. Any use of this product other than the permitted use without the express written authorization of Becton Dickinson and Company is strictly prohibited.

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Not for resale.

©2020 BD. All rights reserved. Unless otherwise noted, BD, the BD Logo and all other trademarks are the property of Becton, Dickinson and Company or its affiliates.

