

Technical Data Sheet

BUV395 Hamster Anti-Mouse CD11c

Product Information

Material Number:	744180
Size:	50 µg
Clone:	N418
Alternative Name:	Itgax; Integrin alpha-X; Integrin αX; ITAX; CR4; Complement Receptor 4
Reactivity:	Mouse (Tested in Development)
Isotype:	Armenian Hamster IgG2
Immunogen:	Mouse Dendritic Cells
Application:	Flow cytometry (Qualified)
Concentration:	0.2 mg/ml
Storage Buffer:	Aqueous buffered solution containing ≤0.09% sodium azide.
Regulatory Status:	RUO

Description

The N418 monoclonal antibody specifically binds to CD11c, the Integrin alpha X (Integrin αX, Itgax) chain of the heterodimeric gp150, 95 (CD11c/CD18, αXβ2) integrin that forms the complement receptor 4 (CR4). CD11c is a 150 kDa type I transmembrane glycoprotein that is expressed on dendritic cells, CD4-CD8+ intestinal intraepithelial lymphocytes (IEL), and some NK cells and T cells. CD11c expression is upregulated on IEL and T cells following activation. Cells of the monocyte/macrophage lineage have been reported to express low levels of CD11c. The CD11c/CD18 integrin can bind to several ligands including iC3b, fibrinogen, and CD54. This integrin reportedly plays important roles in phagocytosis and in mediating cellular interactions during inflammation.

The antibody was conjugated to BD Horizon™ BUV395 which is part of the BD Horizon Brilliant™ Ultraviolet family of dyes. This dye has been exclusively developed by BD Biosciences to have minimal spillover into other detectors, making it an optimal choice for multicolor flow cytometry. With an Ex Max at 348 nm and an Em Max at 395 nm, BD Horizon BUV395 can be excited with a 355 nm laser and detected with a 379/28 filter.

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 with BD Horizon BUV395 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
554656	Stain Buffer (FBS)	500 mL	
554657	Stain Buffer (BSA)	500 mL	
563794	Brilliant Stain Buffer	100 Tests	
555899	Lysing Buffer	100 mL	
553141	Purified Rat Anti-Mouse CD16/CD32 (Mouse BD Fc Block™)	0.1 mg	2.4G2

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 395 is covered by one or more of the following US patents: 8,158,444; 8,575,303; 8,354,239.

References

Metlay JP, Witmer-Pack MD, Agger R, Crowley MT, Lawless D, Steinman RM. The distinct leukocyte integrins of mouse spleen dendritic cells as identified with new hamster monoclonal antibodies. *J Exp Med.* 1990; 171(5):1753-1771.

Sadhu C, Ting HJ, Lipsky B, et al. CD11c/CD18: novel ligands and a role in delayed-type hypersensitivity. *J Leukoc Biol.* 2007; 81(6):1395-1403.

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