

Technical Data Sheet

BV510 Mouse Anti-Human JAML (AMICA)

Product Information

Material Number:	749804
Size:	50 µg
Clone:	401901
Alternative Name:	junctional adhesion molecule-like; JAM-L; AMICA1
Reactivity:	Human (Tested in Development)
Isotype:	Mouse IgG2a
Immunogen:	Human JAML Leu20-Leu275 Recombinant Protein
Application:	Flow cytometry (Qualified)
Concentration:	0.2 mg/ml
Storage Buffer:	Aqueous buffered solution containing ≤0.09% sodium azide.
Regulatory Status:	RUO

Description

The 401901 monoclonal antibody specifically recognizes Junctional adhesion molecule-like (JAML) which is also known as Adhesion molecule interacting with CXADR antigen 1 (AMICA), or Dendritic cell-specific protein CREA7-1. JAML (AMICA) is a ~65 kDa single-pass type I transmembrane glycoprotein that is encoded by JAML which belongs to the junctional adhesion molecule (JAM) family within the Ig gene superfamily. The extracellular region of this adhesion molecule contains two Ig domains followed by a transmembrane segment and a cytoplasmic domain involved in activation signaling. JAML (AMICA) is expressed on some leucocytes including granulocytes, monocytes, $\gamma\delta$ T cells and effector memory $\alpha\beta$ T cells. Leucocyte JAML (AMICA) forms a homodimer that can interact with CXADR (Coxsackie virus and adenovirus receptor, also known as CAR), a cell-surface membrane receptor found in the tight junctional complexes of adjacent endothelial or epithelial cells. These heterophilic interactions can function in leucocyte activation and the regulation of leucocyte migration through epithelial and endothelial tissues, eg, during inflammatory responses or wound healing.

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 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 BV510 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) RUO	500 mL	
554657	Stain Buffer (BSA) RUO	500 mL	
563794	Brilliant Stain Buffer RUO	100 Tests	
555899	Lysing Buffer RUO	100 mL	
349202	Lysing Solution 10X Concentrate CE/IVD	100 NA	
564219	Human BD Fc Block™ RUO	50 mg	
563027	BV510 Mouse IgG2a, κ Isotype Control RUO	50 µg	

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 Violet 510 is covered by one or more of the following US patents: 8,575,303; 8,354,239.

References

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- Moog-Lutz C, Cavé-Riant F, Guibal FC, et al. JAML, a novel protein with characteristics of a junctional adhesion molecule, is induced during differentiation of myeloid leukemia cells. *Blood.* 2003; 102(9):3371-8.
- Verdino P, Witherden DA, Havran WL, Wilson IA. The molecular interaction of CAR and JAML recruits the central cell signal transducer PI3K. *Science.* 2010; 329(5996):1210-1214.

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