

# Technical Data Sheet

## BV711 Mouse Anti-Integrin $\alpha$ v $\beta$ 5

### Product Information

Material Number:	743673
Size:	50 $\mu$ g
Clone:	ALULA
Alternative Name:	Integrin alpha v beta 5; $\alpha$ v $\beta$ 5; CD51/ $\beta$ 5
Reactivity:	Human (Tested in Development)
Isotype:	Mouse 129, also known as 129/J or 129/SvJ IgG2b, $\kappa$
Immunogen:	Mouse fibroblasts expressing $\alpha$ v $\beta$ 5
Application:	Flow cytometry (Qualified)
Concentration:	0.2 mg/ml
Storage Buffer:	Aqueous buffered solution containing $\leq$ 0.09% sodium azide.
Regulatory Status:	RUO

### Description

The ALULA monoclonal antibody specifically binds to Integrin alpha v beta 5 ( $\alpha$ v $\beta$ 5), which is also known as CD51/ $\beta$ 5. Integrin  $\alpha$ v $\beta$ 5 is widely expressed by fibroblasts, endothelial cells, and vascular smooth muscle cells. It is involved in activation-dependent cell migration and cell adhesion to the extracellular matrix. Integrin  $\alpha$ v $\beta$ 5 plays a major role in growth factor-induced angiogenesis in response to VEGF and TGF. The  $\alpha$ v Integrins,  $\alpha$ v $\beta$ 5 and  $\alpha$ v $\beta$ 3, are involved in tumor growth and are being targeted in cancer therapies. The ALULA clone specifically recognizes  $\alpha$ v $\beta$ 5 integrin and functionally blocks the interaction between  $\alpha$ v $\beta$ 5 and vitronectin. Although raised against mouse  $\alpha$ v $\beta$ 5, the ALULA antibody crossreacts with human  $\alpha$ v $\beta$ 5.

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 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 BV711 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	
563125	BV711 Mouse IgG2b, $\kappa$ Isotype Control RUO	50 $\mu$ g	

## 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](http://www.bdbiosciences.com/colors).
7. Please refer to [www.bdbiosciences.com/us/s/resources](http://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 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.
10. Cy is a trademark of GE Healthcare.
11. Alexa Fluor® is a registered trademark of Life Technologies Corporation.

## References

- Burvenich I, Schoonooghe S, Vervoort L, et al. Monoclonal antibody 14C5 targets integrin  $\alpha$ v $\beta$ 5. Mol Cancer Ther. 2008; 7(12):3771-9.
- Lee P, Bax DV, Bilek MM, Weiss AS. A novel cell adhesion region in tropoelastin mediates attachment to integrin  $\alpha$ v $\beta$ 5. J Biol Chem. 2014; 289(3):1467-77.
- Su G1, Hodnett M, Wu N, et al. Am J Respir Cell Mol Biol. 2007; 36(3):377-386.

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[bdbiosciences.com](http://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  
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