

Technical Data Sheet

R718 Mouse Anti-Integrin $\alpha v \beta 5$

Product Information

Material Number:	751738
Size:	50 μ g
Clone:	ALULA
Alternative Name:	Integrin alpha v beta 5; $\alpha v \beta 5$; CD51/ $\beta 5$
Reactivity:	Tested in Development: Human
Isotype:	Mouse 129, also known as 129/J or 129/SvJ IgG2b, κ
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 αv 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 Red 718, which has been developed exclusively for BD Biosciences as a better alternative to Alexa Fluor® 700. BD Horizon Red 718 can be excited by the red laser (628 – 640 nm) and, with an Em Max around 718 nm, it can be detected using a 730/45 nm filter. Due to similar excitation and emission properties, we do not recommend using R718 in combination with APC-R700 or Alexa Fluor® 700.

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

BD™ CompBeads can be used as surrogates to assess fluorescence spillover (Compensation). When fluorochrome conjugated antibodies are bound to BD CompBeads, they have spectral properties very similar to cells. However, for some fluorochromes there can be small differences in spectral emissions compared to cells, resulting in spillover values that differ when compared to biological controls. It is strongly recommended that when using a reagent for the first time, users compare the spillover on cells and BD CompBead to ensure that BD CompBeads are appropriate for your specific cellular application.

Suggested Companion Products

Catalog Number	Name	Size
564219	Human BD Fc Block™	50 μ g
554656	Stain Buffer (FBS)	500 mL
554657	Stain Buffer (BSA)	500 mL
555899	Lysing Buffer	100 mL
349202	Lysing Solution 10X Concentrate	100 mL
566952	R718 Mouse IgG2b, κ Isotype Control	50 μ g

Product Notices

1. Researchers should determine the optimal concentration of this reagent for their individual applications.

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. An isotype control should be used at the same concentration as the antibody of interest.
4. 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.
5. Alexa Fluor® is a registered trademark of Life Technologies Corporation.
6. Please refer to <http://regdocs.bd.com> to access safety data sheets (SDS).
7. Please refer to www.bdbiosciences.com/us/s/resources for technical protocols.
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References

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Burvenich I, Schoonooghe S, Vervoort L, et al. Monoclonal antibody 14C5 targets integrin alphavbeta5.. Mol Cancer Ther. 2008; 7(12):3771-9. (Biology).

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. (Biology).

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