

Datasheet: MCA2461A647

BATCH NUMBER 1701

Description:	RAT ANTI MOUSE CD51:Alexa Fluor® 647
Specificity:	CD51
Other names:	INTEGRIN ALPHA V
Format:	ALEXA FLUOR® 647
Product Type:	Monoclonal Antibody
Clone:	RMV-7
Isotype:	IgG1
Quantity:	100 TESTS/1ml

Product Details

Applications

This product has been reported to work in the following applications. This information is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information. For general protocol recommendations, please visit www.bio-rad-antibodies.com/protocols.

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry	▪			Neat

Where this product has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. Suggested working dilutions are given as a guide only. It is recommended that the user titrates the product for use in their own system using appropriate negative/positive controls.

Target Species	Mouse						
Product Form	Purified IgG conjugated to Alexa Fluor® 647 - liquid						
Max Ex/Em	<table border="1"> <thead> <tr> <th>Fluorophore</th> <th>Excitation Max (nm)</th> <th>Emission Max (nm)</th> </tr> </thead> <tbody> <tr> <td>Alexa Fluor®647</td> <td>650</td> <td>665</td> </tr> </tbody> </table>	Fluorophore	Excitation Max (nm)	Emission Max (nm)	Alexa Fluor®647	650	665
Fluorophore	Excitation Max (nm)	Emission Max (nm)					
Alexa Fluor®647	650	665					
Preparation	Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant.						
Buffer Solution	Phosphate buffered saline						
Preservative	0.09% Sodium Azide						
Stabilisers	1% Bovine Serum Albumin						
Approx. Protein	IgG concentration 0.05mg/ml						

Concentrations

Immunogen Cultured LAK cells from Balb/c mice.

External Database Links

UniProt:

[P43406](#) [Related reagents](#)

Entrez Gene:

[16410](#) Itgav [Related reagents](#)

RRID AB_905967

Fusion Partners Spleen cells from immunised SD rats were fused with the cells of the P3X.63Ag8.653 myeloma cell line.

Specificity

Rat anti Mouse CD51 antibody, clone RMV-7 recognizes murine CD51, a ~140 kDa alpha subunit of the vitronectin receptor, which is otherwise known as the integrin alpha v chain. CD51 can form heterodimers at the cell surface with a variety of beta integrins including CD29 and CD61.

Heterodimers of CD51/CD61 function as a receptor for vitronectin, and a wide array of RGD-containing proteins including fibronectin, fibrinogen, von Willebrand factor, laminin, thrombospondin and osteopontin. CD51/CD61 is primarily expressed on myeloid cells and activated T-cells. Alpha-V integrins may play a role in embryo implantation, angiogenesis and wound healing.

Rat anti Mouse CD51 antibody, clone RMV-7 has been reported to block binding of CD51 to vitronectin, fibronectin, and CD31 in some cell types, as well as blocking LAK cell cytotoxicity ([Takahashi et al. 1990](#)).

Flow Cytometry Use 10ul of the suggested working dilution to label 10^6 cells in 100ul.

References

1. Takahashi, K. *et al.* (1990) A murine very late activation antigen-like extracellular matrix receptor involved in CD2- and lymphocyte function-associated antigen-1-independent killer-target cell interaction. [J Immunol. 145 \(12\): 4371-9.](#)
 2. Piali, L. *et al.* (1995) CD31/PECAM-1 is a ligand for alpha v beta 3 integrin involved in adhesion of leukocytes to endothelium. [J Cell Biol. 130 \(2\): 451-60.](#)
 3. Cui R *et al.* (2007) Abrogation of the interaction between osteopontin and alphavbeta3 integrin reduces tumor growth of human lung cancer cells in mice. [Lung Cancer. 57 \(3\): 302-10.](#)
 4. Takahashi F *et al.* (2001) Role of osteopontin in the pathogenesis of bleomycin-induced pulmonary fibrosis. [Am J Respir Cell Mol Biol. 24 \(3\): 264-71.](#)
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Further Reading

1. Henderson, N.C. *et al.* (2013) Targeting of αv integrin identifies a core molecular pathway that regulates fibrosis in several organs. [Nat Med. 19 \(12\): 1617-24.](#)
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Storage Store at +4°C or at -20°C if preferred.

Storage in frost-free freezers is not recommended.

This product should be stored undiluted. This product is photosensitive and should be protected from light.

Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.

Guarantee 12 months from date of despatch

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Health And Safety Information Material Safety Datasheet documentation #10041 available at: <https://www.bio-rad-antibodies.com/SDS/MCA2461A647>
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