

Datasheet: MCA2461A647

BATCH NUMBER 172167

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 immunized 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 10⁶ 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. 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.](#)
 4. 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.](#)
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Further Reading

1. Henderson, N.C. *et al.* (2013) Targeting of α v integrin identifies a core molecular pathway that regulates fibrosis in several organs. [Nat Med. 19 \(12\): 1617-24.](#)
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Storage

This product is shipped at ambient temperature. It is recommended to aliquot and store at

-20°C on receipt. When thawed, aliquot the sample as needed. Keep aliquots at 2-8°C for short term use (up to 4 weeks) and store the remaining aliquots at -20°C.

Avoid repeated freezing and thawing as this may denature the antibody. Storage in frost-free freezers is not recommended. This product is photosensitive and should be protected from light.

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>

Regulatory For research purposes only

Product inquiries: www.bio-rad-antibodies.com/technical-support

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