

Datasheet: MCA2461EL

Description:	RAT ANTI MOUSE CD51:Low Endotoxin
Specificity:	CD51
Other names:	INTEGRIN ALPHA V
Format:	Low Endotoxin
Product Type:	Monoclonal Antibody
Clone:	RMV-7
Isotype:	IgG1
Quantity:	0.5 mg

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	▪			1/10 - 1/100
Immunohistology - Frozen			▪	
Immunohistology - Paraffin			▪	
ELISA			▪	
Immunoprecipitation	▪			
Western Blotting			▪	
Functional Assays	▪			

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 - liquid
Preparation	Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant.
Buffer Solution	Phosphate buffered saline
Preservative Stabilisers	None present
Carrier Free	Yes
Approx. Protein Concentrations	IgG concentration 1.0mg/ml
Immunogen	Cultured LAK cells from Balb/c mice.

**External Database
Links**

UniProt:

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

Entrez Gene:

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

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 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. 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.](#)

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.](#)

Storage Store at -20°C only.
Storage in frost-free freezers is not recommended.
This product should be stored undiluted. Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.

Shelf Life 18 months from date of despatch.

Health And Safety Information Material Safety Datasheet documentation #10162 available at:
10162: <https://www.bio-rad-antibodies.com/uploads/MSDS/10162.pdf>

Regulatory For research purposes only

Related Products

Recommended Secondary Antibodies

Rabbit Anti Rat IgG (STAR16...)	DyLight®800
Goat Anti Rat IgG (STAR73...)	RPE
Rabbit Anti Rat IgG (STAR21...)	HRP
Rabbit Anti Rat IgG (STAR17...)	FITC
Goat Anti Rat IgG (MOUSE ADSORBED) (STAR71...)	DyLight®549 , DyLight®649 , DyLight®800
Goat Anti Rat IgG (STAR131...)	Alk. Phos. , Biotin
Goat Anti Rat IgG (STAR69...)	FITC
Goat Anti Rat IgG (STAR72...)	HRP

Recommended Negative Controls

[RAT IgG1 NEGATIVE CONTROL:Low Endotoxin \(MCA1211EL\)](#)

North & South America	Tel: +1 800 265 7376 Fax: +1 919 878 3751 Email: antibody_sales_us@bio-rad.com	Worldwide	Tel: +44 (0)1865 852 700 Fax: +44 (0)1865 852 739 Email: antibody_sales_uk@bio-rad.com	Europe	Tel: +49 (0) 89 8090 95 21 Fax: +49 (0) 89 8090 95 50 Email: antibody_sales_de@bio-rad.com
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