

# Datasheet: MCA2034G

**BATCH NUMBER 167701**

<b>Description:</b>	MOUSE ANTI RAT CD49f
<b>Specificity:</b>	CD49f
<b>Other names:</b>	INTEGRIN ALPHA 6 CHAIN, VLA-6
<b>Format:</b>	Purified
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	Mab-5A
<b>Isotype:</b>	IgG1
<b>Quantity:</b>	0.25 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](http://www.bio-rad-antibodies.com/protocols).

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry	▪			
Immunohistology - Frozen	▪			
Immunohistology - Paraffin			▪	
ELISA	▪			
Immunoprecipitation			▪	
Western Blotting			▪	
Immunofluorescence	▪			

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.

<b>Target Species</b>	Rat
<b>Product Form</b>	Purified IgG - liquid
<b>Preparation</b>	Purified IgG prepared by affinity chromatography on Protein A from tissue culture supernatant
<b>Buffer Solution</b>	Phosphate buffered saline
<b>Preservative</b>	0.09% sodium azide (NaN <sub>3</sub> )

## Stabilisers

Carrier Free Yes

Approx. Protein Concentrations IgG concentration 1.0mg/ml

Immunogen Rat oesophageal carcinoma cell line B2T.

RRID AB\_10975483

Fusion Partners Spleen cells from immunized BALB/c mice were fused with cells of the mouse SP2/0 myeloma cell line.

**Specificity** **Mouse anti Rat CD49f antibody, clone Mab-5A** recognizes rat CD49f, also known as Integrin alpha-6, VLA-6 or CD49 antigen-like family member F. CD49f is a 1130 amino acid ~130 kDa single pass type 1 transmembrane glycoprotein which functions as a receptor for laminin when in association with either beta-1 or beta-4 integrins on platelets and epithelial cells respectively.

Mouse anti Rat CD49f antibody, clone Mab-5A does not react with rat fibroblasts.

Flow Cytometry Use 10µl of the suggested working dilution to label 10<sup>6</sup> cells in 100µl

## References

1. Patrick, J.C. & Wu, X. (2003) Integrin-mediated preadipocyte adhesion and migration on laminin-1. [Ann Biomed Eng. 31 \(5\): 505-14.](#)
2. Paku, S. *et al.* (2004) 2-acetylaminofluorene dose-dependent differentiation of rat oval cells into hepatocytes: confocal and electron microscopic studies. [Hepatology. 39: 1353-61.](#)
3. Koenig, S. *et al.* (2006) Zonal hierarchy of differentiation markers and nestin expression during oval cell mediated rat liver regeneration. [Histochem Cell Biol. 126: 723-34.](#)
4. Sanchez-Esteban, J. *et al.* (2006) Integrins beta1, alpha6, and alpha3 contribute to mechanical strain-induced differentiation of fetal lung type II epithelial cells via distinct mechanisms. [Am J Physiol Lung Cell Mol Physiol. 290: L343-50.](#)
5. Kurzrock, E.A. *et al.* (2008) Label-retaining cells of the bladder: candidate urothelial stem cells. [Am J Physiol Renal Physiol. 294 \(6\): F1415-21.](#)
6. Chen, J. *et al.* (2009) Expression of laminin isoforms, receptors, and binding proteins unique to nucleus pulposus cells of immature intervertebral disc. [Connect Tissue Res. 50: 294-306.](#)
7. Huang, E. *et al.* (2009) Characterization of rat hair follicle stem cells selected by vario magnetic activated cell sorting system. [Acta Histochem Cytochem. 42: 129-36.](#)
8. D'Souza, R. *et al.* (2009) Disruption of tubulobulbar complex by high intratesticular estrogens leading to failed spermiation. [Endocrinology. 150: 1861-9.](#)
9. Stevenson, K.S. *et al.* (2009) Isolation, characterization, and differentiation of thy1.1-sorted pancreatic adult progenitor cell populations. [Stem Cells Dev. 18: 1389-98.](#)
10. Krause, P. *et al.* (2010) Liver sinusoidal endothelial and biliary cell repopulation following irradiation and partial hepatectomy. [World J Gastroenterol. 16: 3928-35.](#)
11. Kudo, K.I. *et al.* (2020) Flow Cytometry Definition of Rat Mammary Epithelial Cell

Populations and Their Distinct Radiation Responses. [Radiat Res. 194 \(1\): 22-37.](#)  
12. Dufresne, J. *et al.* (2022) Differential gene expression and hallmarks of stemness in epithelial cells of the developing rat epididymis. [Cell Tissue Res. 389 \(2\): 327-49.](#)

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<b>Storage</b>	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.
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Avoid repeated freezing and thawing as this may denature the antibody. Storage in frost-free freezers is not recommended.

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<b>Guarantee</b>	12 months from date of despatch
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<b>Health And Safety Information</b>	Material Safety Datasheet documentation #10040 available at: <a href="https://www.bio-rad-antibodies.com/SDS/MCA2034G">https://www.bio-rad-antibodies.com/SDS/MCA2034G</a> 10040
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<b>Regulatory</b>	For research purposes only
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## Related Products

### Recommended Secondary Antibodies

Rabbit Anti Mouse IgG (STAR12...)	<a href="#">RPE</a>
Goat Anti Mouse IgG IgA IgM (STAR87...)	<a href="#">HRP</a>
Goat Anti Mouse IgG (STAR76...)	<a href="#">RPE</a>
Goat Anti Mouse IgG (STAR70...)	<a href="#">FITC</a>
Goat Anti Mouse IgG (H/L) (STAR117...)	<a href="#">Alk. Phos.</a> , <a href="#">DyLight®488</a> , <a href="#">DyLight®550</a> , <a href="#">DyLight®650</a> , <a href="#">DyLight®680</a> , <a href="#">DyLight®800</a> , <a href="#">FITC</a> , <a href="#">HRP</a>
Rabbit Anti Mouse IgG (STAR9...)	<a href="#">FITC</a>
Goat Anti Mouse IgG (STAR77...)	<a href="#">HRP</a>
Goat Anti Mouse IgG (Fc) (STAR120...)	<a href="#">FITC</a> , <a href="#">HRP</a>
Rabbit Anti Mouse IgG (STAR13...)	<a href="#">HRP</a>

### Recommended Negative Controls

[MOUSE IgG1 NEGATIVE CONTROL \(MCA1209\)](#)

<b>North &amp; South America</b>	Tel: +1 800 265 7376 Fax: +1 919 878 3751 Email: <a href="mailto:antibody_sales_us@bio-rad.com">antibody_sales_us@bio-rad.com</a>	<b>Worldwide</b>	Tel: +44 (0)1865 852 700 Fax: +44 (0)1865 852 739 Email: <a href="mailto:antibody_sales_uk@bio-rad.com">antibody_sales_uk@bio-rad.com</a>	<b>Europe</b>	Tel: +49 (0) 89 8090 95 21 Fax: +49 (0) 89 8090 95 50 Email: <a href="mailto:antibody_sales_de@bio-rad.com">antibody_sales_de@bio-rad.com</a>
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