

Datasheet: MCA2034F

Description:	MOUSE ANTI RAT CD49f:FITC
Specificity:	CD49f
Other names:	INTEGRIN ALPHA 6 CHAIN, VLA-6
Format:	FITC
Product Type:	Monoclonal Antibody
Clone:	Mab-5A
Isotype:	IgG1
Quantity:	0.1 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	■			Neat - 1/10
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.

Target Species	Rat		
Product Form	Purified IgG conjugated to Fluorescein Isothiocyanate Isomer 1 (FITC) - liquid		
Max Ex/Em	Fluorophore	Excitation Max (nm)	Emission Max (nm)
	FITC	490	525
Preparation	Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant		
Buffer Solution	Phosphate buffered saline		
Preservative Stabilisers	0.09% sodium azide (NaN ₃)		
	1% bovine serum albumin		
Approx. Protein	IgG concentration 0.1mg/ml		

Concentrations

Immunogen

Rat oesophageal carcinoma cell line B2T.

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 10⁶ 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.](#)

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/MCA2034F 10041
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Regulatory	For research purposes only
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Related Products

Recommended Negative Controls

[MOUSE IgG1 NEGATIVE CONTROL:FITC \(MCA1209F\)](#)

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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To find a batch/lot specific datasheet for this product, please use our online search tool at: [bio-rad-antibodies.com/datasheets](https://www.bio-rad-antibodies.com/datasheets)
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