

Datasheet: MCA1133F

Description:	MOUSE ANTI HUMAN CD49a:FITC
Specificity:	CD49a
Other names:	INTEGRIN ALPHA 1 CHAIN, VLA-1
Format:	FITC
Product Type:	Monoclonal Antibody
Clone:	TS2/7
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 - 1/5

Where this antibody 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 antibody for use in their own system using appropriate negative/positive controls.

Target Species	Human		
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 A from tissue culture supernatant		
Buffer Solution	Phosphate buffered saline		
Preservative	0.09% sodium azide (NaN ₃)		
Stabilisers	1% bovine serum albumin		
Approx. Protein Concentrations	IgG concentration 0.1 mg/ml		

Immunogen Human CTL line directed against HLA-DR.

External Database

Links

UniProt:

[P56199](#) [Related reagents](#)

Entrez Gene:

[3672](#) ITGA1 [Related reagents](#)

RRID

AB_566792

Fusion Partners

Spleen cells from immunized Balb.c mice were fused with cells of the NS1 mouse myeloma.

Specificity

Mouse anti Human CD49a antibody, clone TS2/7 recognizes the human alpha 1 integrin sub-unit, which forms the VLA-1 heterodimer in association with the beta 1 integrin. VLA-1 is a receptor for collagen and laminin, and is expressed by chronically activated T cells, melanoma cells and smooth muscle cells.

Mouse anti Human CD49a antibody, clone TS2/7 has been reported as being suitable for use in Western Blotting.

Mouse anti Human CD49a antibody, clone TS2/7 is routinely tested in flow cytometry using HeLa cells.

Flow Cytometry

Use 10 μ l of the suggested working dilution to label 10⁶ cells in 100 μ l

References

1. Hemler, M.E. *et al.* (1985) Biochemical characterization of VLA-1 and VLA-2. Cell surface heterodimers on activated T cells. [J Biol Chem. 260 \(28\): 15246-52.](#)
2. Hafler, D.A. *et al.* (1985) Investigation of in vivo activated T cells in multiple sclerosis and inflammatory central nervous system diseases. [Clin Immunol Immunopathol. 37 \(2\): 163-71.](#)
3. Klemmt, P.A. *et al.* (2007) Endometrial cells from women with endometriosis have increased adhesion and proliferative capacity in response to extracellular matrix components: towards a mechanistic model for endometriosis progression. [Hum Reprod. 22: 3139-47.](#)
4. Berry, P.A. *et al.* (2011) The calcium sensor STIM1 is regulated by androgens in prostate stromal cells. [Prostate. 71: 1646-55.](#)
5. Elshaw, S.R. *et al.* (2001) A comparison of ocular melanocyte and uveal melanoma cell invasion and the implication of alpha1beta1, alpha4beta1 and alpha6beta1 integrins. [Br J Ophthalmol. 85: 732-8.](#)
6. Cervar-Zivkovic, M. *et al.* (2011) Endothelin-1 Stimulates Proliferation of First-Trimester Trophoblasts via the A- and B-Type Receptor and Invasion via the B-Type Receptor. [J Clin Endocrinol Metab. 96: 3408-15.](#)
7. Kaneko, Y. *et al.* (2012) Integrin α 1/ β 1 and α 2/ β 1 as a receptor for IgA1 in human glomerular mesangial cells in IgA nephropathy. [Int Immunol. 24: 219-32.](#)
8. Majali-Martinez, A. *et al.* (2018) Temporal changes of the endothelin system in human cytotrophoblasts during the first trimester of pregnancy. [Physiol Res. 67 \(Suppl 1\):](#)

[S247-S255.](#)

9. Zhuang, L. *et al.* (2021) Dermal Pericytes Exhibit Declined Ability to Promote Human Skin Regeneration with Ageing in 3D Organotypic Culture Models [Cells. 10 \(11\): 3051.](#)

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

Health And Safety Information Material Safety Datasheet documentation #10041 available at: <https://www.bio-rad-antibodies.com/SDS/MCA1133F>
10041

Regulatory For research purposes only

Related Products

Recommended Negative Controls

[MOUSE IgG1 NEGATIVE CONTROL:FITC \(MCA928F\)](#)

Recommended Useful Reagents

[HUMAN SEROBLOCK \(BUF070A\)](#)

[HUMAN SEROBLOCK \(BUF070B\)](#)

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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

'M408267:221011'

Printed on 18 Jan 2024

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