

Datasheet: MCA1133G

Description:	MOUSE ANTI HUMAN CD49a
Specificity:	CD49a
Other names:	INTEGRIN ALPHA 1 CHAIN, VLA-1
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	TS2/7
Isotype:	IgG1
Quantity:	0.2 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	■			1/25 - 1/50
Immunohistology - Frozen	■			
Immunohistology - Paraffin			■	
ELISA			■	
Immunoprecipitation	■			
Western Blotting			■	

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 - liquid
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
Carrier Free	Yes
Approx. Protein Concentrations	IgG concentration 1.0 mg/ml
Immunogen	Human CTL line directed against HLA-DR.

**External Database
Links**

UniProt:

[P56199](#)

[Related reagents](#)

Entrez Gene:

[3672](#)

ITGA1

[Related reagents](#)

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 10ul of the suggested working dilution to label 10⁶ cells in 100ul.

References

1. Hemler, M.E. *et al.* (1984) Glycoproteins of 210,000 and 130,000 m.w. on activated T cells: cell distribution and antigenic relation to components on resting cells and T cell lines. [J Immunol. 132 \(6\): 3011-8.](#)
2. 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.](#)
3. 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.](#)
4. 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.](#)
5. Berry, P.A. *et al.* (2011) The calcium sensor STIM1 is regulated by androgens in prostate stromal cells. [Prostate. 71: 1646-55.](#)
6. 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.](#)
7. 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.](#)
8. Kaneko, Y. *et al.* (2012) Integrin $\alpha 1/\beta 1$ and $\alpha 2/\beta 1$ as a receptor for IgA1 in human glomerular mesangial cells in IgA nephropathy. [Int Immunol. 24: 219-32.](#)

Storage

Store at +4°C or at -20°C if preferred.

This product should be stored undiluted.

Storage in frost-free freezers is not recommended. 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 #10040 available at:
10040: <https://www.bio-rad-antibodies.com/uploads/MSDS/10040.pdf>

Regulatory

For research purposes only

Related Products

Recommended Secondary Antibodies

Goat Anti Mouse IgG (STAR76...)	RPE
Goat Anti Mouse IgG IgA IgM (STAR87...)	Alk. Phos. , HRP
Goat Anti Mouse IgG (H/L) (STAR117...)	Alk. Phos. , DyLight®488 , DyLight®549 , DyLight®649 , DyLight®680 , DyLight®800 , FITC , HRP
Rabbit Anti Mouse IgG (STAR9...)	FITC
Goat Anti Mouse IgG (STAR77...)	HRP
Rabbit Anti Mouse IgG (STAR12...)	RPE
Goat Anti Mouse IgG (Fc) (STAR120...)	FITC , HRP
Rabbit Anti Mouse IgG (STAR8...)	DyLight®800
Goat Anti Mouse IgG (STAR70...)	FITC
Rabbit Anti Mouse IgG (STAR13...)	HRP
Human Anti Mouse IgG1 (HCA036...)	HRP

Recommended Negative Controls

[MOUSE IgG1 NEGATIVE CONTROL \(MCA928\)](#)

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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