

Datasheet: MCA743

BATCH NUMBER 159860

Description:	MOUSE ANTI HUMAN CD49b
Specificity:	CD49b
Other names:	INTEGRIN ALPHA 2 CHAIN, VLA-2
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	AK7
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	▪			1/50 - 1/100
Immunohistology - Frozen (1)	▪			1/500 - 1/1000
Immunohistology - Paraffin		▪		
ELISA			▪	
Immunoprecipitation			▪	
Western Blotting			▪	
Functional Assays (2)	▪			

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.

(1) **The epitope recognised by this antibody is reported to be sensitive to formaldehyde fixation and tissue processing. Bio-Rad recommends the use of acetone fixation for frozen sections.**

(2) **Clone AK7 has been reported to work in functional assays, Bio-Rad recommend the use of [MCA743EL](#) for this purpose.**

Target Species

Human

Species Cross Reactivity

Reacts with: Cynomolgus monkey, Rhesus Monkey, Baboon

N.B. Antibody reactivity and working conditions may vary between species. Cross

reactivity is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information.

Product Form	Purified IgG - liquid
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Preparation	Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant
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Buffer Solution	Phosphate buffered saline
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Preservative Stabilisers	0.09% Sodium Azide
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Carrier Free	Yes
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Approx. Protein Concentrations	IgG concentration 1.0 mg/ml
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External Database Links	UniProt: P17301 Related reagents Entrez Gene: 3673 ITGA2 Related reagents
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Synonyms	CD49B
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RRID	AB_321446
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Fusion Partners	Spleen cells from immunised mice were fused with cells of the mouse NS1 myeloma cell line.
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Specificity	<p>Mouse anti Human CD49b antibody, clone AK7 recognizes the integrin alpha 2 subunit, a ~160 kDa glycoprotein that non-covalently associates with the ~130 kDa integrin beta 1 subunit to form the VLA-2 complex.</p> <p>CD49b is expressed by platelets, long term cultivated T cells, approximately 50% of monocytes and most adherent cell lines.</p> <p>Mouse anti Human CD49b antibody, clone AK7 inhibits cell attachment to collagen.</p>
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Flow Cytometry	Use 10ul of the suggested working dilution to label 10 ⁶ cells in 100ul.
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Histology Positive Control Tissue	Tonsil
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References	1. Favaloro, E.J. <i>et al.</i> (1990) Co-expression of haemopoietic antigens on vascular endothelial cells: a detailed phenotypic analysis. Br J Haematol. 74 (4): 385-94.
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2. Mazurov, A.V. *et al.* (1991) A monoclonal antibody, VM64, reacts with a 130 kDa glycoprotein common to platelets and endothelial cells: heterogeneity in antibody binding to human aortic endothelial cells. [Thromb Haemost. 66 \(4\): 494-9.](#)
3. Cavers, M. *et al.* (2002) Differential expression of beta1 and beta2 integrins and L-selectin on CD4+ and CD8+ T lymphocytes in human blood: comparative analysis between isolated cells, whole blood samples and cryopreserved preparations. [Clin Exp Immunol. 127: 60-5.](#)
4. Koutsogiannaki, S. & Kaloyianni, M. (2011) Effect of 17 β -estradiol on adhesion of *Mytilus galloprovincialis* hemocytes to selected substrates. Role of alpha2 integrin subunit. [Fish Shellfish Immunol. 31 \(1\): 73-80.](#)
5. Hamaia, S.W. *et al.* (2012) Mapping of potent and specific binding motifs, GLOGEN and GVOGEA, for integrin α 1 β 1 using collagen toolkits II and III. [J Biol Chem. 287 \(31\): 26019-28.](#)
6. Mörtberg A *et al.* (2016) Sensitive detection of platelet-specific antibodies with a modified MAIPA using biotinylated antibodies and streptavidin-coated beads. [J Immunol Methods. 434: 9-15.](#)
7. Rane, J.K. *et al.* (2016) Inhibition of the glucocorticoid receptor results in an enhanced miR-99a/100-mediated radiation response in stem-like cells from human prostate cancers. [Oncotarget. 7 \(32\): 51965-80.](#)
8. García-gareta, E. *et al.* (2019) Engineering the migration and attachment behaviour of primary dermal fibroblasts. [Biotechnol Bioeng. Jan 19 \[Epub ahead of print\].](#)

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.
Guarantee	12 months from date of despatch
Health And Safety Information	Material Safety Datasheet documentation #10040 available at: https://www.bio-rad-antibodies.com/SDS/MCA743 10040
Regulatory	For research purposes only

Related Products

Recommended Secondary Antibodies

Rabbit Anti Mouse IgG (STAR12...)	RPE
Goat Anti Mouse IgG IgA IgM (STAR87...)	HRP
Goat Anti Mouse IgG (STAR76...)	RPE
Goat Anti Mouse IgG (STAR70...)	FITC
Rabbit Anti Mouse IgG (STAR13...)	HRP
Goat Anti Mouse IgG (Fc) (STAR120...)	FITC , HRP
Rabbit Anti Mouse IgG (STAR9...)	FITC

Goat Anti Mouse IgG (STAR77...)

[HRP](#)

Goat Anti Mouse IgG (H/L) (STAR117...)

[Alk. Phos.](#), [DyLight®488](#), [DyLight®550](#),
[DyLight®650](#), [DyLight®680](#), [DyLight®800](#),
[FITC](#), [HRP](#)

Recommended Negative Controls

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

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Europe

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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

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