

Datasheet: MCA1187

Description:	MOUSE ANTI HUMAN CD49e
Specificity:	CD49e
Other names:	INTEGRIN ALPHA 5 CHAIN, VLA-5
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	JBS5
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	▪			Neat - 1/10
Immunohistology - Frozen	▪			0.5ug/ml - 1ug/ml
Immunohistology - Paraffin			▪	
ELISA			▪	
Immunoprecipitation	▪			1ug/ml - 5ug/ml
Western Blotting			▪	
Functional Assays (1)	▪			

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) **This product contains sodium azide, removal by dialysis is recommended prior to use in functional assays. Dialysis cassettes [EQU003](#) are suitable for this purpose.**

Target Species	Human
Species Cross Reactivity	Reacts with: Dog N.B. Antibody reactivity and working conditions may vary between species.
Product Form	Purified IgG - liquid
Preparation	Purified IgG prepared by affinity chromatography on Protein G.
Buffer Solution	Phosphate buffered saline
Preservative Stabilisers	0.09% Sodium Azide
Approx. Protein	Ig concentration 0.5 mg/ml

Concentrations

External Database Links

UniProt:

[P08648](#) [Related reagents](#)

Entrez Gene:

[3678](#) ITGA5 [Related reagents](#)

Synonyms

FNRA

Fusion Partners

Spleen cells from immunized BALB/c mice were fused with cells of the NS1 mouse myeloma cell line.

Specificity

Mouse anti Human CD49e antibody, clone JBS5 recognizes the Alpha 5 integrin, also known as CD49e, VLA-5, Fibronectin receptor subunit alpha or Integrin alpha-F. CD49e is a 1049 amino acid ~130kDa single pass type-1 transmembrane glycoprotein containing seven [FG-GAP](#) repeats. Mouse anti human CD49e antibody, clone JBS5 been shown to stimulate homotypic cellular aggregation of alpha 5 beta 1 positive lymphoid cell lines ([Shen et al. 1991](#)). It also inhibits the adherence of cells to fibronectin.

Removal of sodium azide is recommended prior to use in functional assays.

Flow Cytometry

Use 10ul of the suggested working dilution to label 1×10^6 cells in 100ul of whole blood.

Histology Positive Control Tissue

Human Endothelium

References

1. Shen, C.X. *et al.* (1991) Antibodies to different members of the beta 1 (CD29) integrins induce homotypic and heterotypic cellular aggregation. [Cell Immunol. 138 \(1\): 216-28.](#)
 2. McCarty, O.J. *et al.* (2004) Evaluation of the role of platelet integrins in fibronectin-dependent spreading and adhesion. [J Thromb Haemost. 2 \(10\): 1823-33.](#)
 3. Bax, D.V. *et al.* (2004) Integrin alpha5beta1 and ADAM-17 interact *in vitro* and co-localize in migrating HeLa cells. [J Biol Chem. 279 \(21\): 22377-86.](#)
 4. Gassmann, P. *et al.* (2009) CXCR4 regulates the early extravasation of metastatic tumor cells *in vivo*. [Neoplasia. 11: 651-61.](#)
 5. Yao, H. *et al.* (2010) Increased potency of the PHSCN dendrimer as an inhibitor of human prostate cancer cell invasion, extravasation, and lung colony formation. [Clin Exp Metastasis 27:173-84.](#)
 6. Gassmann, P. *et al.* (2010) In vivo tumor cell adhesion in the pulmonary microvasculature is exclusively mediated by tumor cell-endothelial cell interaction. [BMC Cancer. 10: 177.](#)
 7. Orazizadeh, M. *et al.* (2008) CD47 associates with alpha 5 integrin and regulates responses of human articular chondrocytes to mechanical stimulation in an in vitro model. [Arthritis Res Ther. 10: R4.](#)
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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: <https://www.bio-rad-antibodies.com/uploads/MSDS/10040.pdf>

Regulatory For research purposes only

Related Products

Recommended Secondary Antibodies

Goat Anti Mouse IgG (STAR77...) [HRP](#)
Rabbit Anti Mouse IgG (STAR13...) [HRP](#)
Goat Anti Mouse IgG (Fc) (STAR120...) [FITC](#), [HRP](#)
Rabbit Anti Mouse IgG (STAR8...) [DyLight@800](#)
Goat Anti Mouse IgG (STAR76...) [RPE](#)
Rabbit Anti Mouse IgG (STAR12...) [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](#)
Human Anti Mouse IgG1 (HCA036...) [HRP](#)
Goat Anti Mouse IgG (STAR70...) [FITC](#)

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