

Datasheet: MCA2082XZ

Description:	RAT ANTI MOUSE CD49d:Preservative Free
Specificity:	CD49d
Other names:	INTEGRIN ALPHA 4 CHAIN, VLA-4
Format:	Preservative Free
Product Type:	Monoclonal Antibody
Clone:	R1-2
Isotype:	IgG2b
Quantity:	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	▪			
Immunohistology - Frozen	▪			
Immunohistology - Paraffin			▪	
ELISA			▪	
Immunoprecipitation	▪			
Western Blotting			▪	
Functional Assays	▪			

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	Mouse
Product Form	Purified IgG - liquid
Preparation	Purified IgG prepared by affinity chromatography on Protein G
Buffer Solution	Phosphate buffered saline
Preservative Stabilisers	None Present
Approx. Protein Concentrations	IgG concentration 1.0 mg/ml
Immunogen	Lymphoma cell line TK1.
External Database	UniProt:

Links

[Q00651](#) [Related reagents](#)

Entrez Gene:

[16401](#) Itga4 [Related reagents](#)

Fusion Partners Spleen cells from immunised Fisher rats were fused with cells of the P3x63Ag8.653 mouse myeloma cell line.

Specificity **Rat anti Mouse CD49d monoclonal antibody, clone R1-2** recognizes murine CD49d, an integrin, also known as integrin alpha-4 or very late antigen 4 alpha subunit. CD49d forms a heterodimer at the cell surface with CD29 to form VLA-4, and is involved in cell-cell and cell-extracellular matrix interactions.

Clone R1-2 recognises an epitope within residues 195-268 of CD49d, designated as B1 ([Kamada *et al.* 1995](#)).

Rat anti Mouse CD49d, clone R1-2 has been reported to inhibit the adhesion of murine lymphocytes to Peyer's patch HEV, ([Holzmann *et al.* 1989](#)) and prevent central nervous system inflammation and experimental encephalomyelitis by inhibiting recruitment of inflammatory leukocytes ([Brocke *et al.* 1999](#)).

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

References

1. Kamata, T. *et al.* (1995) Identification of putative ligand-binding sites of the integrin alpha 4 beta 1 (VLA-4, CD49d/CD29) [Biochem J. 305 \(Pt 3\): 945-51.](#)
2. Holzmann, B. & Weissman, I.L. (1989) Integrin molecules involved in lymphocyte homing to Peyer's patches. [Immunol Rev. 108: 45-61.](#)
3. Chiesa, S. *et al.* (2011) Mesenchymal stem cells impair in vivo T-cell priming by dendritic cells. [Proc Natl Acad Sci U S A. 108 \(42\): 17384-9.](#)

Storage Store at -20^o only.

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 #10162 available at: <https://www.bio-rad-antibodies.com/uploads/MSDS/10162.pdf>

Regulatory For research purposes only

Related Products

Recommended Secondary Antibodies

Rabbit Anti Rat IgG (STAR16...)	DyLight®800
Goat Anti Rat IgG (STAR73...)	RPE
Rabbit Anti Rat IgG (STAR21...)	HRP

Rabbit Anti Rat IgG (STAR17...) [FITC](#)
Goat Anti Rat IgG (MOUSE ADSORBED) (STAR71...) [DyLight@549](#), [DyLight@649](#), [DyLight@800](#)
Rabbit Anti Rat IgG (STAR20...) [RPE](#)
Goat Anti Rat IgG (STAR131...) [Alk. Phos.](#), [Biotin](#)
Goat Anti Rat IgG (STAR72...) [HRP](#)
Goat Anti Rat IgG (STAR69...) [FITC](#)

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