

Datasheet: MCA2503

BATCH NUMBER 0514

Description:	MOUSE ANTI HUMAN CD49d
Specificity:	CD49d
Other names:	INTEGRIN ALPHA 4 CHAIN, VLA-4
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	Bu49
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 - 1/200
Immunohistology - Frozen (1)	▪			
Immunohistology - Paraffin		▪		
ELISA			▪	
Immunoprecipitation	▪			
Western Blotting			▪	

Where this product 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 product 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.

Target Species

Human

Species Cross Reactivity

Reacts with: Dog

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
Preparation	Purified IgG prepared by affinity chromatography on Protein A
Buffer Solution	Phosphate buffered saline
Preservative Stabilisers	0.09% Sodium Azide (NaN ₃)
Carrier Free	Yes
Approx. Protein Concentrations	IgG concentration 1.0mg/ml
Immunogen	Hyatt myeloma cell line
External Database Links	<p>UniProt: P13612 Related reagents</p> <p>Entrez Gene: 3676 ITGA4 Related reagents</p>
Synonyms	CD49D
RRID	AB_844508
Fusion Partners	Cells from immunised mice were fused with cells of the NS0 myeloma cell line
Specificity	<p>Mouse anti Human CD49d monoclonal antibody, clone Bu49 recognizes human CD49d, also known as integrin alpha 4 or VLA-4 alpha subunit. CD49d is a ~150 kDa single pass type I transmembrane glycoprotein. CD49d can be proteolytically cleaved to yield fragments of ~80 and ~70 kDa (Hemler et al. 1987). CD49d associates with either CD29 to form VLA-4 or with Integrin beta-7 to form The Peyer's patches-specific homing receptor LPAM-1, involved in the lymphocyte migration and homing to gut-associated lymphoid tissue (Sackstein 2006) through its interaction with MadCam-1, preferentially expressed on Peyer's patch high endothelial venules and postcapillary venules in lamina propria (Briskin et al. 1997).</p> <p>CD49d is expressed on a broad range of cells including lymphocytes, monocytes, eosinophils and thymocytes. CD49d expression may serve as a prognostic marker of survival and disease progression in patients with chronic lymphocytic leukemia and may have therapeutic potential (Bulian et al. 2008).</p> <p>Mouse anti human CD49, clone Bu49 cross-reacts with the canine B-cell leukemia cell line GL-1 and induces homotypic cell aggregation (Ikewaki et al. 2010).</p>
Flow Cytometry	Use 10ul of the suggested working dilution to label 1x10 ⁶ cells in 100ul.

Immunohistology For best results Bio-Rad recommend [HISTAR](#) detection kits.

Histology Positive Control Tissue Human tonsil.

References

1. Oxford University Press. (1995) Leucocyte Typing V. White cell differentiation antigens. Volume Two. p 1617-8.
2. Ikewaki, N. *et al.* (2010) Anti-human very late antigen-alpha4 (CD49d) monoclonal antibody (BU49) cross-reacts with the canine B-cell leukemia cell line GL-1, resulting in the induction of homotypic cell aggregation. [Cell Immunol. 263: 55-64.](#)
3. Hamilton, E. *et al.* (2012) Mimicking the tumour microenvironment: three different co-culture systems induce a similar phenotype but distinct proliferative signals in primary chronic lymphocytic leukaemia cells. [Br J Haematol. 158: 589-99.](#)

Storage Store at +4°C or at -20°C if preferred.
Storage in frost-free freezers is not recommended.
This product should be stored undiluted. Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.

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/MCA2503>
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](#)
Rabbit Anti Mouse IgG (STAR13...) [HRP](#)
Goat Anti Mouse IgG (STAR70...) [FITC](#)
Goat Anti Mouse IgG (H/L) (STAR117...) [Alk. Phos.](#), [DyLight®488](#), [DyLight®550](#),
[DyLight®650](#), [DyLight®680](#), [DyLight®800](#),
[FITC](#), [HRP](#)
Rabbit Anti Mouse IgG (STAR9...) [FITC](#)
Goat Anti Mouse IgG (STAR77...) [HRP](#)
Goat Anti Mouse IgG (Fc) (STAR120...) [FITC](#), [HRP](#)

Recommended Negative Controls

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

North & South America Tel: +1 800 265 7376
Fax: +1 919 878 3751

Worldwide Tel: +44 (0)1865 852 700
Fax: +44 (0)1865 852 739

Europe Tel: +49 (0) 89 8090 95 21
Fax: +49 (0) 89 8090 95 50

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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