

Datasheet: MCA2503

BATCH NUMBER 172557

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 from tissue culture supernatant
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 immunized 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.

Histology Positive Control Tissue	Human tonsil.
References	<ol style="list-style-type: none"> 1. Oxford University Press. (1995) Leucocyte Typing V. White cell differentiation antigens. Volume Two. p 1617-8. 2. Skibinski, G. <i>et al.</i> (1998) Tonsil stromal-cell lines expressing FDC-like properties: isolation, characterization, and interaction with B lymphocytes. Dev Immunol. 6 (3-4): 273-84. 3. Ikewaki, N. <i>et al.</i> (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. 4. Hamilton, E. <i>et al.</i> (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	<p>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.</p> <p>Avoid repeated freezing and thawing as this may denature the antibody. Storage in frost-free freezers is not recommended.</p>
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
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 \(MCA928\)](#)

Product inquiries: www.bio-rad-antibodies.com/technical-support

To find a batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets
'M437760:250318'

Printed on 29 Jan 2026

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