

Datasheet: MCA2025T

BATCH NUMBER 1702

Description:	MOUSE ANTI HUMAN CD49b		
Specificity:	CD49b		
Other names:	INTEGRIN ALPHA 2 CHAIN, VLA-2		
Format:	Purified		
Product Type:	Monoclonal Antibody		
Clone:	16B4		
Isotype:	lgG1		
Quantity:	25 μg		

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				30ug/ml
Immunohistology - Frozen	•			30ug/ml - 40ug/ml
Immunohistology - Paraffin (1)	•			
ELISA				10ug/ml
Immunoprecipitation				25ug/ml - 50ug/ml
Western Blotting	•			
Immunofluorescence				
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)This product requires antigen retrieval using heat treatment prior to staining of paraffin sections.

Tris/EDTA pH9.0 is recommended for this purpose.

(2)This product contains sodium azide, removal by dialysis is recommended prior to use in functional assays. Dialysis cassettes <u>EQU003</u> are suitable for this purpose.

Target Species Human

Species Cross Reactivity	Does not react with:Rat
Product Form	Purified IgG - liquid
Preparation	Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant
Buffer Solution	Phosphate buffered saline
Preservative Stabilisers	0.09% Sodium Azide
Carrier Free	Yes
Approx. Protein Concentrations	IgG concentration 1.0 mg/ml
Immunogen	Purified human beta 1 preparation from HT1080 fibrosarcoma cell extract
External Database Links	UniProt: P17301 Related reagents Entrez Gene: 3673 ITGA2 Related reagents
Synonyms	CD49B
RRID	AB_1102121
Fusion Partners	Spleen cells from immunized BALB/c mice were fused with cells of the X63/Ag8.653 mouse myeloma cell line
Specificity	Mouse anti Human CD49b antibody, clone 16B4 recognizes human CD49b, also known as integrin $\alpha 2$, collagen receptor, Platelet membrane glycoprotein la or VLA-2 subunit alpha. CD49b is a 1181 amino acid ~160 kDa single pass type-1 transmembrane glycoprotein possessing multiple <u>FG-GAP</u> repeats and a single <u>VWFA</u> domain. Mouse anti human CD49b antibody, clone 16B4 is identified as capable of immunoprecipitating a non-reducible alpha subunit from I ¹²⁵ surface labeled human cell line extract. It is confirmed as specific to the alpha 2 subunit by relative expression of antigen on various cell lines by FACS, and its recognition of affinity purified alpha 2 beta 1 in dot blots.
References	 Fitter, S. et al. (1999) Transmembrane 4 superfamily protein CD151 (PETA-3) associates with beta 1 and alpha IIb beta 3 integrins in haemopoietic cell lines and modulates cell-cell adhesion. Biochem J. 338 (Pt 1): 61-70. Sincock, P.M. et al. (1999) PETA-3/CD151, a member of the transmembrane 4 superfamily, is localised to the plasma membrane and endocytic system of endothelial cells, associates with multiple integrins and modulates cell function. J Cell Sci. 112 (Pt 6):

833-44.

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- 11. Connors, W.L. and Heino, J. (2005) A duplexed microsphere-based cellular adhesion assay. Anal Biochem. 337: 246-55.
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- 13. Vuoriluoto, K. *et al.* (2008) Syndecan-1 supports integrin alpha2beta1-mediated adhesion to collagen. <u>Exp Cell Res. 314: 3369-81.</u>
- 14. Holleran, B.J. *et al.* (2003) Differential recruitment of alpha2beta1 and alpha4beta1 integrins to lipid rafts in Jurkat T lymphocytes exposed to collagen type IV and fibronectin. J Leukoc Biol. 73: 243-52.
- 15. Rintanen, N. *et al.* (2012) Calpains promote α2β1 integrin turnover in nonrecycling integrin pathway. Mol Biol Cell. 23: 448-463.
- 16. Pietiäinen, V. *et al.* (2004) Echovirus 1 endocytosis into caveosomes requires lipid rafts, dynamin II, and signaling events. <u>Mol Biol Cell. 15: 4911-25.</u>
- 17. Kankaanpää, P. *et al.* (2015) Cellular recognition and macropinocytosis-like internalization of nanoparticles targeted to integrin α2β1. Nanoscale. 7 (42): 17889-901.
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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.

Related Products

Recommended Secondary Antibodies

Rabbit Anti Mouse IgG (STAR12...)

Goat Anti Mouse IgG IgA IgM (STAR87...)

RPE

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...) <u>FITC</u>
Goat Anti Mouse IgG (STAR77...) <u>HRP</u>

Goat Anti Mouse IgG (Fc) (STAR120...) FITC, HRP

Recommended Negative Controls

MOUSE IgG1 NEGATIVE CONTROL (MCA928)

 North & South
 Tel: +1 800 265 7376
 Worldwide
 Tel: +44 (0)1865 852 700
 Europe
 Tel: +49 (0) 89 8090 95 21

 America
 Fax: +1 919 878 3751
 Fax: +44 (0)1865 852 739
 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 'M366066:200529'

Printed on 18 Jan 2024

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