

Datasheet: MCA1456

Description:	MOUSE ANTI HUMAN CD104
Specificity:	CD104
Other names:	INTEGRIN BETA 4
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	450-9D
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	▪			1/25 - 1/100
Immunohistology - Frozen (1)	▪			1/500 - 1/1000
Immunohistology - Paraffin		▪		
ELISA			▪	
Immunoprecipitation	▪			
Western Blotting	▪			
Immunofluorescence	▪			

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	<p>Reacts with: Ferret, Mink</p> <p>Based on sequence similarity, is expected to react with:Mustelid</p> <p>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</p>

further information.

Product Form	Purified IgG - liquid
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Preparation	Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant
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Buffer Solution	Phosphate buffered saline
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Preservative Stabilisers	0.09% sodium azide (NaN ₃)
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Carrier Free	Yes
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Approx. Protein Concentrations	IgG concentration 1.0 mg/ml
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Immunogen	Purified alpha6 beta4 integrin from A431 cells.
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External Database Links	UniProt: P16144 Related reagents Entrez Gene: 3691 ITGB4 Related reagents
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RRID	AB_2129143
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Fusion Partners	Spleen cells from immunised BALB/c mice were fused with cells of the mouse Sp2/0 myeloma cell line.
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Specificity	<p>Mouse anti Human CD104 antibody, clone 450-9D recognizes the human beta4 integrin, also known as CD104. CD104 is a ~205 kDa glycoprotein which associates with the alpha6 integrin to form the alpha6/beta4 complex. CD104 is expressed on epithelial cells, Schwann cells and various tumor cell lines.</p> <p>Mouse anti Human CD104 antibody, clone 450-9D recognizes an extracellular epitope on the CD104 molecule.</p>
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Flow Cytometry	Use 10µl of the suggested working dilution to label 10 ⁶ cells in 100µl
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Histology Positive Control Tissue	Human tonsil
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References	<ol style="list-style-type: none">1. Kennel, S.J. <i>et al.</i> (1990) Second generation monoclonal antibodies to the human integrin alpha 6 beta 4. Hybridoma. 9 (3): 243-55.2. Barbaro, V. <i>et al.</i> (2009) Reconstruction of a human hemicornea through natural scaffolds compatible with the growth of corneal epithelial stem cells and stromal keratocytes. Mol Vis. 15: 2084-93.
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3. Martel, C.J. & Aasted, B. (2009) Characterization of antibodies against ferret immunoglobulins, cytokines and CD markers. [Vet Immunol Immunopathol. 132:109-15.](#)
4. Smith, K. *et al.* (2011) Mono- and tri-cationic porphyrin-monoclonal antibody conjugates: photodynamic activity and mechanism of action. [Immunology. 132: 256-65.](#)
5. Alam, H. *et al.* (2011) Loss of keratins 8 and 18 leads to alterations in $\alpha\beta 4$ -integrin-mediated signalling and decreased neoplastic progression in an oral-tumour-derived cell line. [J Cell Sci. 124: 2096-106.](#)
6. Lai-cheong, J.E. *et al.* (2009) Loss-of-function FERMT1 mutations in kindler syndrome implicate a role for fermitin family homolog-1 in integrin activation. [Am J Pathol. 175 \(4\): 1431-41.](#)
7. Groves, R.W. *et al.* (2010) A homozygous nonsense mutation within the dystonin gene coding for the coiled-coil domain of the epithelial isoform of BPAG1 underlies a new subtype of autosomal recessive epidermolysis bullosa simplex. [J Invest Dermatol. 130 \(6\): 1551-7.](#)
8. Aasted, B. & Viuff, B. (2007) Reactivity of monoclonal antibodies to human CD antigens with cells from mink. [Vet Immunol Immunopathol. 119 \(1-2\): 27-37.](#)

Storage 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.

Avoid repeated freezing and thawing as this may denature the antibody. Storage in frost-free freezers is not recommended.

Guarantee 12 months from date of despatch

Health And Safety Information Material Safety Datasheet documentation #10040 available at: 10040: <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 (STAR12...) [RPE](#)
- Goat Anti Mouse IgG (STAR70...) [FITC](#)
- Goat Anti Mouse IgG IgA IgM (STAR87...) [Alk. Phos.](#), [HRP](#)
- Rabbit Anti Mouse IgG (STAR9...) [FITC](#)
- Goat Anti Mouse IgG (STAR76...) [RPE](#)
- 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 (STAR13...) [HRP](#)
- Goat Anti Mouse IgG (Fc) (STAR120...) [FITC](#), [HRP](#)

Recommended Negative Controls

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

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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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