

Datasheet: MCA1456XZ

BATCH NUMBER 0414

Description:	MOUSE ANTI HUMAN CD104:Preservative Free
Specificity:	CD104
Other names:	INTEGRIN BETA 4
Format:	Preservative Free
Product Type:	Monoclonal Antibody
Clone:	450-9D
Isotype:	IgG1
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	▪			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</p>

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 G from tissue culture supernatant
Buffer Solution	Phosphate buffered saline
Preservative Stabilisers	None present
Carrier Free	Yes
Approx. Protein Concentrations	IgG concentration 1.0 mg/ml
Immunogen	Purified alpha6 beta4 integrin from A431 cells.
External Database Links	UniProt: P16144 Related reagents Entrez Gene: 3691 ITGB4 Related reagents
RRID	AB_324583
Fusion Partners	Spleen cells from immunised BALB/c mice were fused with cells of the mouse Sp2/0 myeloma cell line.
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>
Flow Cytometry	Use 10µl of the suggested working dilution to label 10 ⁶ cells in 100µl
Histology Positive Control Tissue	Human tonsil
References	<ol style="list-style-type: none">1. Aasted, B. & Viuff, B. (2007) Reactivity of monoclonal antibodies to human CD antigens with cells from mink. Vet Immunol Immunopathol. 119 (1-2): 27-37.2. Barbaro, V. <i>et al.</i> (2009) Reconstruction of a human hemiacornea through natural scaffolds compatible with the growth of corneal epithelial stem cells and stromal

keratocytes. [Mol Vis. 15: 2084-93.](#)

3. Martel, C.J. & Aasted, B. (2009) Characterization of antibodies against ferret immunoglobulins, cytokines and CD markers. [Vet Immunol Immunopathol. 132:109-15.](#)

4. 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.](#)

5. 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.](#)

6. Smith, K. *et al.* (2011) Mono- and tri-cationic porphyrin-monoclonal antibody conjugates: photodynamic activity and mechanism of action. [Immunology. 132: 256-65.](#)

7. Alam, H. *et al.* (2011) Loss of keratins 8 and 18 leads to alterations in $\alpha\beta4$ -integrin-mediated signalling and decreased neoplastic progression in an oral-tumour-derived cell line. [J Cell Sci. 124: 2096-106.](#)

Storage	Store at -20°C 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.
Guarantee	12 months from date of despatch
Health And Safety Information	Material Safety Datasheet documentation #10162 available at: https://www.bio-rad-antibodies.com/SDS/MCA1456XZ 10162
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 IgA IgM (STAR87...)	Alk. Phos. , 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 (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 Email: antibody_sales_us@bio-rad.com	Worldwide	Tel: +44 (0)1865 852 700 Fax: +44 (0)1865 852 739 Email: antibody_sales_uk@bio-rad.com	Europe	Tel: +49 (0) 89 8090 95 21 Fax: +49 (0) 89 8090 95 50 Email: antibody_sales_de@bio-rad.com
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batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets

'M410165:221026'

Printed on 18 Jan 2024

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