

Datasheet: MCA1456F

Description:	MOUSE ANTI HUMAN CD104:FITC
Specificity:	CD104
Other names:	INTEGRIN BETA 4
Format:	FITC
Product Type:	Monoclonal Antibody
Clone:	450-9D
Isotype:	IgG1
Quantity:	0.1 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	■			Neat - 1/10
Immunofluorescence	■			

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.

Target Species	Human		
Species Cross Reactivity	Reacts with: Mustelid, Ferret N.B. Antibody reactivity and working conditions may vary between species.		
Product Form	Purified IgG conjugated to Fluorescein Isothiocyanate Isomer 1 (FITC) - liquid		
Max Ex/Em	Fluorophore	Excitation Max (nm)	Emission Max (nm)
	FITC	490	525
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		
	1% Bovine Serum Albumin		
Approx. Protein Concentrations	IgG concentration 0.1 mg/ml		
Immunogen	Purified alpha6 beta4 integrin from A431 cells.		

**External Database
Links**

UniProt:

[P16144](#)

[Related reagents](#)

Entrez Gene:

[3691](#)

ITGB4

[Related reagents](#)

Fusion Partners

Spleen cells from immunised BALB/c mice were fused with cells of the mouse Sp2/0 myeloma cell line.

Specificity

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.

Mouse anti Human CD104 antibody, clone 450-9D recognizes an extracellular epitope on the CD104 molecule.

Flow Cytometry

Use 10ul of the suggested working dilution to label 10⁶ cells in 100ul.

References

1. Kennel, S.J. *et al.* (1990) Second generation monoclonal antibodies to the human integrin alpha 6 beta 4. [Hybridoma. 9 \(3\): 243-55.](#)
2. Barbaro, V. *et al.* (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.](#)
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 α6β4-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.](#)

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. This product is photosensitive and should be protected from light.

Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.

Shelf Life

18 months from date of despatch.

**Health And Safety
Information**

Material Safety Datasheet documentation #10041 available at:
10041: <https://www.bio-rad-antibodies.com/uploads/MSDS/10041.pdf>

Related Products

Recommended Negative Controls

[MOUSE IgG1 NEGATIVE CONTROL:FITC \(MCA928F\)](#)

Recommended Useful Reagents

[HUMAN SEROBLOCK \(BUF070A\)](#)

[HUMAN SEROBLOCK \(BUF070B\)](#)

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