

Datasheet: MCA2057

Description:	MOUSE ANTI HUMAN CD143
Specificity:	CD143
Other names:	ACE
Format:	S/N
Product Type:	Monoclonal Antibody
Clone:	9B9
Isotype:	IgG1
Quantity:	1 ml

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
Immunohistology - Frozen (1)	▪			
Immunohistology - Paraffin		▪		
ELISA	▪			
Immunoprecipitation	▪			
Western Blotting		▪		

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)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: Hamster, Monkey, Rat, Cat

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	Tissue Culture Supernatant - liquid
Preservative Stabilisers	0.09% Sodium Azide
Immunogen	Human lung CD143 (Angiotensin converting enzyme).
External Database Links	<p>UniProt: P12821 Related reagents</p> <p>Entrez Gene: 1636 ACE Related reagents</p>
Synonyms	DCP, DCP1
RRID	AB_323344
Fusion Partners	Spleen cells from immunised Balb/c mice were fused with cells of the mouse X63 - Ag8 - 653 myeloma cell line.
Specificity	<p>Mouse anti Human CD143 antibody, clone 9B9 recognizes human somatic CD143, also know as angiotensin - converting enzyme (ACE). CD143 exists in two forms, a ~170 kDa somatic form and a ~90 kDa germinal form. The somatic form is expressed by endothelial cells (especially those of lung capillaries and arterioles), epithelial cells (especially in proximal renal tubules and small intestine), by some neuronal cells and variably by some macrophages and T lymphocytes. The germinal form is expressed by spermatozoa.</p> <p>This antibody recognizes active ACE binding to an N-terminal domain epitope.</p>
Flow Cytometry	Use 10ul of the suggested working dilution to label 10 ⁶ cells in 100ul.
Histology Positive Control Tissue	Kidney
References	<ol style="list-style-type: none"> Danilov, S. <i>et al.</i> (1994) Structure-function analysis of angiotensin I-converting enzyme using monoclonal antibodies. Selective inhibition of the amino-terminal active site. J Biol Chem. 269 (43): 26806-14. Metzger, R. <i>et al.</i> (2000) CD143 in the development of atherosclerosis. Atherosclerosis. 150 (1): 21-31. Danilov, S.M. <i>et al.</i> (1991) Lung is the target organ for a monoclonal antibody to angiotensin-converting enzyme. Lab Invest. 64 (1): 118-24. Ulrich, C. <i>et al.</i> (2011) Monocyte Angiotensin converting enzyme expression may be associated with atherosclerosis rather than arteriosclerosis in hemodialysis patients. Clin J Am Soc Nephrol. 6: 505-11. Danilov, S. <i>et al.</i> (1989) Radioimmunoimaging of lung vessels: an approach using indium-111-labeled monoclonal antibody to angiotensin-converting enzyme. J Nucl Med. 30:1686-92. Atochina, E. <i>et al.</i> (1998) Immunotargeting of catalase to ACE or ICAM-1 protects

- perfused rat lungs against oxidative stress. [Am J Physiol. 275:L806-17.](#)
7. Seibert, E. *et al.* (2016) Association between autonomic nervous dysfunction and cellular inflammation in end-stage renal disease. [BMC Cardiovasc Disord. 16 \(1\): 210.](#)
 8. Seibert, E. *et al.* (2017) Vitamin D₃ supplementation does not modify cardiovascular risk profile of adults with inadequate vitamin D status. [Eur J Nutr. 56 \(2\): 621-634.](#)
 9. Silva, E.A. *et al.* (2014) Endothelial cells expressing low levels of CD143 (ACE) exhibit enhanced sprouting and potency in relieving tissue ischemia. [Angiogenesis. 17 \(3\): 617-30.](#)
 10. Ulrich, C. *et al.* (2010) Circulating monocyte subpopulations with high expression of angiotensin-converting enzyme predict mortality in patients with end-stage renal disease. [Nephrol Dial Transplant. 25 \(7\): 2265-72.](#)
 11. Ulrich, C. *et al.* (2006) Increased expression of monocytic angiotensin-converting enzyme in dialysis patients with cardiovascular disease. [Nephrol Dial Transplant. 21 \(6\): 1596-602.](#)
 12. Nowak, K. *et al.* (2007) Alterations of tumor and normal tissue of human lung cancer resection specimens after isolation perfusion. [J Physiol Pharmacol. 58 Suppl 5 \(Pt 2\): 501-11.](#)
 13. Böttcher, A. *et al.* (2006) Angiotensin-converting enzyme signalling in human preadipocytes and adipocytes [Open Life Sciences. 1 \(2\) \[Epub ahead of print\].](#)
 14. Fiedler, R. *et al.* (2012) Randomized controlled pilot study of 2 weeks' treatment with high cutoff membrane for hemodialysis patients with elevated C-reactive protein. [Artif Organs. 36 \(10\): 886-93.](#)
 15. Eliasson, R. *et al.* (2013) Method and kit for cancer diagnosis. [Patent Application: US 13/641,424. Publication number: US20130040849 A1.](#)

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.

Guarantee

18 months from date of despatch.

Health And Safety Information

Material Safety Datasheet documentation #10055 available at:
10055: <https://www.bio-rad-antibodies.com/uploads/MSDS/10055.pdf>

Regulatory

For research purposes only

Related Products

Recommended Secondary Antibodies

- Goat Anti Mouse IgG IgA IgM (STAR87...) [Alk. Phos.](#), [HRP](#)
 Goat Anti Mouse IgG (STAR77...) [HRP](#)
 Rabbit Anti Mouse IgG (STAR12...) [RPE](#)
 Rabbit Anti Mouse IgG (STAR8...) [DyLight®800](#)

Rabbit Anti Mouse IgG (STAR13...)	HRP
Goat Anti Mouse IgG (STAR76...)	RPE
Goat Anti Mouse IgG (STAR70...)	FITC
Goat Anti Mouse IgG (Fc) (STAR120...)	FITC , HRP
Rabbit Anti Mouse IgG (STAR9...)	FITC
Goat Anti Mouse IgG (H/L) (STAR117...)	Alk. Phos. , DyLight®488 , DyLight®680 , DyLight®800 , 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
----------------------------------	---	------------------	---	---------------	---

From March 15, 2021, we will no longer supply printed datasheets with our products.
Look out for updates on how to access your digital version at bio-rad-antibodies.com

'M353415:190423'

Printed on 10 Feb 2021