

Datasheet: MCA2402

Description:	RAT ANTI MOUSE ER-TR7
Specificity:	ER-TR7
Other names:	Collagen alpha-1(VI) chain
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	ER-TR7
Isotype:	IgG2a
Quantity:	0.25 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)	▪			
Immunohistology - Frozen	▪			1/50 - 1/100
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) Membrane permeabilization is required for this application. The use of Leucoperm (Product Code [BUF09](#)) is recommended for this purpose.

Target Species	Mouse
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 (NaN ₃)
Carrier Free	Yes
Approx. Protein Concentrations	IgG concentration 1.0 mg/ml
Immunogen	Isolated C3H thymic stromal cells.
External Database Links	<p>UniProt: Q04857 Related reagents</p> <p>Entrez Gene: 12833 Col6a1 Related reagents</p>
RRID	AB_915429
Fusion Partners	Cells from immunized rats were fused with cells of the mouse P3-X63-Ag8.563 myeloma cell line.
Specificity	<p>Rat anti Mouse ER-TR7 antibody, clone ER-TR7 recognizes ER-TR7, an antigen located in the cytoplasm of reticular fibroblasts, a component of the extracellular matrix of lymphoid and non-lymphoid organs.</p> <p>Rat anti Mouse ER-TR7 antibody, clone ER-TR7 recognizes collagen type VI (Schiavinato et al. 2021) and has been used to stain the microanatomy of various organs and also stains subendothelial deposits in atherosclerotic plaques.</p>
Flow Cytometry	Use 10µl of the suggested working dilution to label 1x10 ⁶ cells in 100µl
Histology Positive Control Tissue	Mouse spleen
References	<ol style="list-style-type: none"> 1. Van Vliet, E. <i>et al.</i> (1986) Reticular fibroblasts in peripheral lymphoid organs identified by a monoclonal antibody. J Histochem Cytochem. 34 (7): 883-90. 2. Kalled, S.L. <i>et al.</i> (1998) Anti-CD40 ligand antibody treatment of SNF1 mice with established nephritis: preservation of kidney function. J Immunol. 160: 2158-65. 3. Katakai, T. <i>et al.</i> (2003) Th1-biased tertiary lymphoid tissue supported by CXC chemokine ligand 13-producing stromal network in chronic lesions of autoimmune gastritis. J Immunol. 171: 4359-68. 4. Fujii, N. <i>et al.</i> (2006) Targeting of interstitial cells using a simple gene-transfer strategy. Nephrol Dial Transplant. 21: 2745-53. 5. Mueller, S.N. <i>et al.</i> (2007) Viral targeting of fibroblastic reticular cells contributes to immunosuppression and persistence during chronic infection. Proc Natl Acad Sci U S A. 104:15430-5. 6. Kumamoto, Y. <i>et al.</i> (2009) MGL2 Dermal dendritic cells are sufficient to initiate contact hypersensitivity in vivo. PLoS One. 4: e5619.

7. Tumanov, A.V. *et al.* (2010) Cellular source and molecular form of TNF specify its distinct functions in organization of secondary lymphoid organs. [Blood. 116: 3456-64.](#)
8. Köhler, C.N. (2010) The actin-binding protein caldesmon is in spleen and lymph nodes predominately expressed by smooth-muscle cells, reticular cells, and follicular dendritic cells. [J Histochem Cytochem. 58 \(2\): 183-93.](#)
9. Umemoto, E. *et al.* (2012) Constitutive plasmacytoid dendritic cell migration to the splenic white pulp is cooperatively regulated by CCR7- and CXCR4-mediated signaling. [J Immunol. 189 \(1\): 191-9.](#)
10. Burrell, B.E. *et al.* (2015) Lymph Node Stromal Fiber ER-TR7 Modulates CD4+ T Cell Lymph Node Trafficking and Transplant Tolerance. [Transplantation. 99 \(6\): 1119-25.](#)
11. Bennett, K.M. *et al.* (2016) Induction of Colonic M Cells during Intestinal Inflammation. [Am J Pathol. 186 \(5\): 1166-79.](#)
12. Watanabe, R. *et al.* (2016) Formation of fibroblastic reticular network in the brain after infection with neurovirulent murine coronavirus. [Neuropathology. 36 \(6\): 513-26.](#)
13. Marrero, L. *et al.* (2017) Fibroblast reticular cells engineer a blastema extracellular network during digit tip regeneration in mice. [Regeneration \(Oxf\). 4 \(2\): 69-84.](#)
14. Hwang, I.Y. *et al.* (2017) Normal Thymocyte Egress, T Cell Trafficking, and CD4+ T Cell Homeostasis Require Interactions between RGS Proteins and Gα_{i2}. [J Immunol. 198 \(7\): 2721-2734.](#)
15. Dawson, L.A. *et al.* (2021) Proximal digit tip amputation initiates simultaneous blastema and transient fibrosis formation and results in partial regeneration. [Wound Repair Regen. 29 \(1\): 196-205.](#)
16. Finetti, F. *et al.* (2020) Optimization of Organotypic Cultures of Mouse Spleen for Staining and Functional Assays. [Front Immunol. 11: 471.](#)

Further Reading

1. Lokmic, Z. *et al.* (2008) The extracellular matrix of the spleen as a potential organizer of immune cell compartments. [Semin Immunol. 20: 4-13.](#)
2. Schiavinato, A. *et al.* (2021) Collagen type VI is the antigen recognized by the ER-TR7 antibody. [Eur J Immunol. 51 \(9\): 2345-7.](#)

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: <https://www.bio-rad-antibodies.com/SDS/MCA2402>
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Regulatory

For research purposes only

Related Products

Recommended Secondary Antibodies

Rabbit Anti Rat IgG (STAR16...)	DyLight@800
Rabbit Anti Rat IgG (STAR17...)	FITC
Goat Anti Rat IgG (STAR72...)	HRP
Goat Anti Rat IgG (STAR69...)	FITC
Goat Anti Rat IgG (STAR73...)	RPE
Rabbit Anti Rat IgG (STAR21...)	HRP
Goat Anti Rat IgG (MOUSE ADSORBED) (STAR71...)	DyLight@550 , DyLight@650 , DyLight@800
Goat Anti Rat IgG (STAR131...)	Alk. Phos. , Biotin

Recommended Negative Controls

[RAT IgG2a NEGATIVE CONTROL \(MCA1212\)](#)

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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To find a batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets
'M415022:221215'

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