Datasheet: MCA342R

Description:	MOUSE ANTI RAT CD163
Specificity:	CD163
Other names:	ED2
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	ED2
Isotype:	IgG1
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
Immunohistology - Frozen	▪			1/50 - 1/100
Immunohistology - Paraffin (1)	▪			
ELISA			▪	
Immunoprecipitation	▪			
Western Blotting	▪			
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.

(1) **This product requires protein digestion pre-treatment of paraffin sections e.g. trypsin or pronase**

Target Species	Rat
Product Form	Purified IgG - liquid
Preparation	Purified IgG prepared by affinity chromatography on Protein A from tissue culture supernatant
Buffer Solution	Phosphate buffered saline
Preservative Stabilisers	0.09% Sodium Azide
Carrier Free	Yes
Approx. Protein Concentrations	IgG concentration 0.5 mg/ml

Immunogen	Rat Spleen cell homogenate.
Fusion Partners	Spleen cells from immunised BALB/c mice were fused with cells of the SP2/0-Ag 14 mouse myeloma cell line.
Specificity	**Mouse anti Rat CD163, clone ED2** recognises the rat ED2 cell surface glycoprotein (Dijkstra *et al.* 1985). A 175 kDa molecule also known as rat CD163, a member of the group B scavenger receptor cysteine-rich (SRCR) family and an erythroblast adhesion receptor (Fabriek *et al.* 2007). Mouse anti rat CD163, clone ED2 was shown to detect approximately 50% of peritoneal macrophages, a subset of splenic macrophages, and most tissue macrophages. However, no staining was observed in monocytes or alveolar macrophages (Dijkstra *et al.* 1985, Beelen *et al.* 1987). In freshly isolated bone marrow, expression of CD163 was limited to mature macrophages only (Barbe *et al.* 1990). Clone ED2 may be used in immunohistology using antigen retrieval, and has also been described reacting with paraffin-embedded material following PLP fixation (Periodate-lysine-paraformaldehyde), see Whiteland *et al.*
Flow Cytometry	Use 10ul of the suggested working dilution to label 10^6 cells in 100ul
Histology Positive Control Tissue	Liver
References	1. Dijkstra, C.D. *et al.* (1985) The heterogeneity of mononuclear phagocytes in lymphoid organs: distinct macrophage subpopulations in the rat recognized by monoclonal antibodies ED1, ED2 and ED3. Immunology. 54 (3): 589-99. 2. Beelen, R.H.J. *et al*. (1987) Monoclonal antibodies ED1, ED2 and ED3 against rat macrophages: Expression of recognized antigens in different stages of differentiation. Transplant Proc. 3: 3166-70. 3. Barbe, E. *et al*. (1990) Characterization and expression of the antigen present on resident rat macrophages recognized by monoclonal antibody ED2. Immunobiol. 182: 88-99. 4. Dijkstra, C.D. & Damoiseaux, J.G. (1993) Macrophage heterogeneity established by immunocytochemistry. Prog Histochem Cytochem. 27 (2): 1-65. 5. Whiteland, J.L. *et al.* (1995) Immunohistochemical detection of T-cell subsets and other leukocytes in paraffin-embedded rat and mouse tissues with monoclonal antibodies. J Histochem Cytochem. 43 (3): 313-20. 6. Polfliet, M.M.J. *et al.* (2002) Identification of the rat mature macrophage antigen ED2 as CD163: Regulation by glucocorticoids and role in the production of proinflammatory mediators. PhD Thesis. Vrije University, Amsterdam. 7. Deng, X. *et al.* (2005) Chronic alcohol consumption accelerates fibrosis in response to cerulein-induced pancreatitis in rats. Am J Pathol. 166 (1): 93-106. 8. Piquet-Pellorce, I. *et al.* (2005) Identification of the leukemia inhibitory factor cell targets within the rat testis. Biol Reprod. 72: 602-11. 9. Fujita, E. *et al.* (2010) Statin attenuates experimental anti-glomerular basement membrane glomerulonephritis together with the augmentation of alternatively activated macrophages. Am J Pathol. 177 (3): 1143-54. 10. Schwartzkopff, J. *et al.* (2010) NK cell depletion delays corneal allograft rejection in baby rats. Mol Vis. 16: 1928-35. 11. Baker, S.C. *et al.* (2011) Cellular integration and vascularisation promoted by a resorbable, particulate-leached, cross-linked poly(ε-caprolactone) scaffold. Macromol Biosci. 11 (5): 618-27. 12. Bedi, A. *et al.* (2010) Effect of early and delayed mechanical loading on tendon-to-bone healing after anterior cruciate ligament reconstruction. J Bone Joint Surg Am. 92: 2387-401.

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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.
Shelf Life	18 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 (STAR76...)	RPE
Goat Anti Mouse IgG IgA IgM (STAR87...)	Alk. Phos., HRP
Rabbit Anti Mouse IgG (STAR9...)	FITC
Goat Anti Mouse IgG (STAR77...)	HRP
Rabbit Anti Mouse IgG (STAR12...)	RPE
Goat Anti Mouse IgG (Fc) (STAR120...)	FITC, HRP
Rabbit Anti Mouse IgG (STAR8...)	DyLight®800
Goat Anti Mouse IgG (STAR70...)	FITC
Rabbit Anti Mouse IgG (STAR13...)	HRP
Human Anti Mouse IgG1 (HCA036...)	HRP
Goat Anti Mouse IgG (H/L) (STAR117...)	Alk. Phos., DyLight®488, DyLight®549, DyLight®649, DyLight®680, DyLight®800, FITC, HRP

Recommended Negative Controls

MOUSE IgG1 NEGATIVE CONTROL (MCA1209)

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
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