

Datasheet: MCA1853T

BATCH NUMBER 147757

Description:	MOUSE ANTI HUMAN CD163
Specificity:	CD163
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	EDHu-1
Isotype:	IgG1
Quantity:	25 µg

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	▪			1/10 - 1/50
Immunohistology - Frozen	▪			
Immunohistology - Paraffin	▪			
ELISA	▪			
Immunoprecipitation			▪	
Western Blotting	▪			
Immunofluorescence	▪			
Immunoassay	▪			

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: Rhesus Monkey, Sheep, Pig, Guinea Pig, Bovine, Cynomolgus monkey 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	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 1.0 mg/ml

Immunogen Leucocytes harvested from the pleural cavity of patients with idiopathic spontaneous pneumothorax

External Database Links

UniProt:

[Q86VB7](#) [Related reagents](#)

Entrez Gene:

[9332](#) CD163 [Related reagents](#)

Synonyms M130

RRID AB_2074539

Specificity **Mouse anti Human CD163 antibody, clone EDHu-1** recognizes the human CD163 cell surface antigen, a 130-140 kDa glycoprotein expressed by tissue macrophages. CD163 expression may be induced on monocytes by culture in dexamethasone.

Clone EDHu-1 is reported to inhibit the binding of haptoglobin/hemoglobin to CD163 ([Madsen *et al.* 2004](#)). Truncation mutation analysis demonstrates binding of EDHu-1 occurs via the N-terminal region of CD163 containing the first three scavenger receptor, Cysteine-rich, [SRCR domains](#) the third domain being critical as, cleavage of this domain at the major cleavage site [ASP-265](#) abrogates binding to the N-terminal fragment.

Flow Cytometry Use 10ul of the suggested working dilution to label 10^6 cells in 100ul.

References

1. Kristiansen, M. *et al.* (2001) Identification of the haemoglobin scavenger receptor. [Nature. 409 \(6817\): 198-201.](#)
2. Madsen, M. *et al.* (2004) Molecular characterization of the haptoglobin.hemoglobin receptor CD163. Ligand binding properties of the scavenger receptor cysteine-rich domain region. [J Biol Chem. 279 \(49\): 51561-7.](#)
3. Kim, W.K. *et al.* (2006) CD163 identifies perivascular macrophages in normal and viral encephalitic brains and potential precursors to perivascular macrophages in blood. [Am J Pathol. 168 \(3\): 822-34.](#)
4. Moreno JA *et al.* (2010) Peripheral artery disease is associated with a high CD163/TWEAK plasma ratio. [Arterioscler Thromb Vasc Biol. 30 \(6\): 1253-62.](#)
5. Herrmann-Hoesing, L.M. (2010) Ovine progressive pneumonia virus capsid antigen as

- found in CD163- and CD172a-positive alveolar macrophages of persistently infected sheep. [Vet Pathol. 47: 518-28.](#)
6. Asleh, R. *et al.* (2003) Genetically determined heterogeneity in hemoglobin scavenging and susceptibility to diabetic cardiovascular disease. [Circ Res. 92: 1193-200.](#)
 7. Fabriek, B.O. *et al.* (2007) The macrophage CD163 surface glycoprotein is an erythroblast adhesion receptor. [Blood 109: 5223-9.](#)
 8. Jensen, T.O. *et al.* (2009) Macrophage markers in serum and tumor have prognostic impact in American Joint Committee on Cancer stage I/II melanoma. [J Clin Oncol. 27: 3330-7.](#)
 9. Montes de Oca, M. *et al.* (2005) Skeletal muscle inflammation and nitric oxide in patients with COPD. [Eur Respir J. 26: 390-7.](#)
 10. Martens JH *et al.* (2006) Differential expression of a gene signature for scavenger/lectin receptors by endothelial cells and macrophages in human lymph node sinuses, the primary sites of regional metastasis. [J Pathol. 208 \(4\): 574-89.](#)
 11. Vinet-Oliphant, H. *et al.* (2010) Neurokinin-1 receptor (NK1-R) expression in the brains of SIV-infected rhesus macaques: implications for substance P in NK1-R immune cell trafficking into the CNS. [Am J Pathol. 177: 1286-97.](#)
 12. Wang, X. *et al.* (2006) Monocyte/macrophage and T-cell infiltrates in peritoneum of patients with ovarian cancer or benign pelvic disease. [J Transl Med. 4: 30.](#)
 13. Grund, S. *et al.* (2009) The microglial/macrophagic response at the tumour-brain border of invasive meningiomas. [Neuropathol Appl Neurobiol. 35: 82-8.](#)
 14. Jorgensen, J.M. *et al.* (2009) Expression level, tissue distribution pattern, and prognostic impact of vascular endothelial growth factors VEGF and VEGF-C and their receptors Flt-1, KDR, and Flt-4 in different subtypes of non-Hodgkin lymphomas. [Leuk Lymphoma. 50: 1647-60.](#)
 15. Moreno, J.A. *et al.* (2009) The CD163-expressing macrophages recognize and internalize TWEAK: potential consequences in atherosclerosis. [Atherosclerosis. 207: 103-10.](#)
 16. Tang, Z. *et al.* (2013) Glucocorticoids Enhance CD163 Expression in Placental Hofbauer Cells. [Endocrinology 154: 471-82.](#)
 17. Boyle, J.J. *et al.* (2009) Coronary intraplaque hemorrhage evokes a novel atheroprotective macrophage phenotype. [Am J Pathol. 174: 1097-108.](#)
 18. Taus, N.S. *et al.* (2010) Sheep (*Ovis aries*) airway epithelial cells support ovine herpesvirus 2 lytic replication in vivo. [Vet Microbiol. 145: 47-53.](#)
 19. Seeboth, J. *et al.* (2012) The fungal T-2 toxin alters the activation of primary macrophages induced by TLR-agonists resulting in a decrease of the inflammatory response in the pig. [Vet Res. 43: 35.](#)
 20. Berglin, L. *et al.* (2014) *In situ* characterization of intrahepatic non-parenchymal cells in PSC reveals phenotypic patterns associated with disease severity. [PLoS One 9: e105375.](#)
 21. Liu, J. *et al.* (2014) Evidence for mTOR pathway activation in a spectrum of epilepsy-associated pathologies. [Acta Neuropathol Commun. 2: 71.](#)
 22. Baek, J.H. *et al.* (2014) Extracellular Hb enhances cardiac toxicity in endotoxemic guinea pigs: protective role of haptoglobin. [Toxins \(Basel\) 6: 1244-59.](#)
 23. Micci, L, *et al.* (2014) CD4 depletion in SIV-infected macaques results in macrophage and microglia infection with rapid turnover of infected cells. [PLoS Pathog. 10: e1004467.](#)
 24. Pirilä E *et al.* (2015) Macrophages modulate migration and invasion of human tongue

- squamous cell carcinoma. [PLoS One 10 \(3\): e0120895.](#)
25. Arranz-Solís D *et al.* (2016) Systemic and local immune responses in sheep after *Neospora caninum* experimental infection at early, mid and late gestation. [Vet Res. 47 \(1\): 2.](#)
26. Lakritz, J R. *et al.* (2016) α 4-Integrin Antibody Treatment Blocks Monocyte/Macrophage Traffic to, Vascular Cell Adhesion Molecule-1 Expression in, and Pathology of the Dorsal Root Ganglia in an SIV Macaque Model of HIV-Peripheral Neuropathy. [Am J Pathol. 186 \(7\): 1754-61.](#)
27. Fry, L.M. *et al.* (2016) East Coast Fever Caused by *Theileria parva* Is Characterized by Macrophage Activation Associated with Vasculitis and Respiratory Failure. [PLoS One 11 \(5\): e0156004.](#)
28. Schultz, N. *et al.* (2017) Amylin alters human brain pericyte viability and NG2 expression. [J Cereb Blood Flow Metab. 37 \(4\): 1470-82.](#)
29. Zhang, W. *et al.* (2013) Myeloid clusters are associated with a pro-metastatic environment and poor prognosis in smoking-related early stage non-small cell lung cancer. [PLoS One 8: e65121.](#)
30. Furukawa S *et al.* (2017) Interleukin-33 produced by M2 macrophages and other immune cells contributes to Th2 immune reaction of IgG4-related disease. [Sci Rep. 7: 42413.](#)
31. Farina, A. *et al.* (2017) Epstein-Barr virus lytic infection promotes activation of Toll-like receptor 8 innate immune response in systemic sclerosis monocytes. [Arthritis Res Ther. 19 \(1\): 39.](#)
32. Mallard, J. *et al.* (2017) A method for obtaining simian immunodeficiency virus RNA sequences from laser capture microdissected and immune captured CD68+ and CD163+ macrophages from frozen tissue sections of bone marrow and brain. [J Immunol Methods. 442: 59-63.](#)
33. Blair, T.C. *et al.* (2016) Immunopathology of Japanese macaque encephalomyelitis is similar to multiple sclerosis. [J Neuroimmunol. 291: 1-10.](#)
34. Zhu, C. *et al.* (2017) Activation of CECR1 in M2-like TAMs promotes paracrine stimulation-mediated glial tumor progression. [Neuro Oncol. 19 \(5\): 648-59.](#)
35. Derricott, H. *et al.* (2016) Characterizing Villitis of Unknown Etiology and Inflammation in Stillbirth. [Am J Pathol. 186 \(4\): 952-61.](#)
36. Wächter, C. *et al.* (2016) Loss of cerebellar neurons in the progression of lentiviral disease: effects of CNS-permeant antiretroviral therapy. [J Neuroinflammation. 13 \(1\): 272.](#)
37. Chen, J. *et al.* (2019) Generation of Pigs Resistant to Highly Pathogenic-Porcine Reproductive and Respiratory Syndrome Virus through Gene Editing of CD163. [Int J Biol Sci. 15 \(2\): 481-492.](#)
38. Palaiologou, E. *et al.* (2020) Human placental villi contain stromal macrovesicles associated with networks of stellate cells. [J Anat. 236 \(1\): 132-41.](#)
39. Kong, L.Q. *et al.* (2013) The clinical significance of the CD163+ and CD68+ macrophages in patients with hepatocellular carcinoma. [PLoS One. 8 \(3\): e59771.](#)
40. Zhao, S. *et al.* (2020) CD14⁺ monocytes and CD163⁺ macrophages correlate with the severity of liver fibrosis in patients with chronic hepatitis C [Experimental and Therapeutic Medicine. 20 \(6\): 1-1.](#)
41. Hayashi, K. *et al.* (2020) The Natural History of Spontaneously Occurred Endometriosis in Cynomolgus Monkeys by Monthly Follow-Up Laparoscopy for Two Years. [Tohoku J Exp Med. 251 \(4\): 241-53.](#)

42. Gonçalves, V.M. *et al.* (2021) Macrophage and Lymphocyte Infiltration Is Associated with Volumetric Tumor Size but Not with Volumetric Growth in the T&yym;l;bingen Schwannoma Cohort. [Cancers \(Basel\). 13 \(3\): 466.](#)

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 12 months from date of despatch

Health And Safety Information Material Safety Datasheet documentation #10040 available at: <https://www.bio-rad-antibodies.com/SDS/MCA1853T>
10040

Regulatory For research purposes only

Related Products

Recommended Secondary Antibodies

Rabbit Anti Mouse IgG (STAR12...) [RPE](#)
Goat Anti Mouse IgG IgA IgM (STAR87...) [HRP](#)
Goat Anti Mouse IgG (STAR76...) [RPE](#)
Goat Anti Mouse IgG (STAR70...) [FITC](#)
Rabbit Anti Mouse IgG (STAR13...) [HRP](#)
Goat Anti Mouse IgG (Fc) (STAR120...) [FITC](#), [HRP](#)
Rabbit Anti Mouse IgG (STAR9...) [FITC](#)
Goat Anti Mouse IgG (STAR77...) [HRP](#)
Goat Anti Mouse IgG (H/L) (STAR117...) [Alk. Phos.](#), [DyLight®488](#), [DyLight®550](#),
[DyLight®650](#), [DyLight®680](#), [DyLight®800](#),
[FITC](#), [HRP](#)

Recommended Negative Controls

[MOUSE IgG1 NEGATIVE CONTROL \(MCA928\)](#)

North & South Tel: +1 800 265 7376

America 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

To find a batch/lot specific datasheet for this product, please use our online search tool at: [bio-rad-antibodies.com/datasheets](https://www.bio-rad-antibodies.com/datasheets)

'M365814:200529'

Printed on 26 Mar 2025