

BM4001**Monoclonal Antibody to CD163 - Purified**

Alternate names:	Hemoglobin scavenger receptor, M130, Macrophage marker, Scavenger receptor cysteine-rich type 1 protein M130
Quantity:	0.25 mg
Concentration:	0.5 mg/ml
Background:	CD163 is a scavenger receptor for the haemoglobin-haptoglobin complex, and is upregulated by glucocorticoids and IL-10. The extracellular portion of the receptor is regularly shed and can be found in the circulation. An important function of CD163 seems to be in the adhesion of monocytes to activated endothelial cells. CD163 is expressed by approximately 50% of peritoneal macrophages, a subset of splenic macrophages, and by macrophages in most other tissues. However, it is not expressed by monocytes, alveolar macrophages or microglial cells.
Uniprot ID:	Q86VBZ
NCBI:	NP_004235
GeneID:	9332
Host / Isotype:	Mouse / IgG1
Recommended Isotype Controls:	SM20P (for use in rat samples), AM03095PU-N
Clone:	ED2
Immunogen:	Rat Spleen cell homogenate. Spleen cells from immunised BALB/c mice were fused with cells of the SP2/0Ag 14 mouse myeloma cell line.
Format:	State: Liquid purified IgG fraction from Tissue Culture Supernatant Purification: Affinity Chromatography on Protein A Buffer System: PBS Preservatives: 0.09% Sodium Azide
Applications:	Western blot. Immunoprecipitation. Immunofluorescence. Flow Cytometry: Use 10 µl of 1/10-1/100 diluted CD163 antibody to label 10 ⁶ cells in 100 µl. Immunohistochemistry on Frozen Sections: 1/50-1/100. Immunohistochemistry on Paraffin Sections: This product requires antigen retrieval using pronase prior to staining of paraffin sections. IHC on paraffin-embedded material following PLP fixation (Periodate-lysine-paraformaldehyde) - refer to <i>Whiteland et al</i> (Ref.5.) <i>Histology Positive Control:</i> Liver tissue. Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.

Specificity:	<p>This antibody recognises the Rat CD163 cell surface glycoprotein, a 175kD molecule also known as ED2.</p> <p>It does <u>not</u> react with Human.</p> <p>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 (<i>Dijkstra et al.</i> 1985, <i>Beelen et al.</i> 1987). In freshly isolated bone marrow, expression of CD163 was limited to mature macrophages only (<i>Barbe et al.</i> 1990).</p>
Species Reactivity:	Tested: Rat.
Storage:	Store undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing. Shelf life: one year from despatch.
Product Citations:	Purchased from Acris: <ol style="list-style-type: none">1. Bonjoch Gassol, L. Estudi dels exosomes com a mecanisme de comunicació intercel·lular en patologies pancreàtiques. Thesis 2017. http://diposit.ub.edu/dspace/handle/2445/115304
General Readings:	<ol style="list-style-type: none">1. Dijkstra CD, Döpp EA, Joling P, Kraal G. The heterogeneity of mononuclear phagocytes in lymphoid organs: distinct macrophage subpopulations in the rat recognized by monoclonal antibodies ED1, ED2 and ED3. <i>Immunology.</i> 1985 Mar;54(3):589-99. PubMed PMID: 3882559.2. 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. <i>Transplant. Proc.</i> 3: 3166-3170.3. Barbé E, Damoiseaux JG, Döpp EA, Dijkstra CD. Characterization and expression of the antigen present on resident rat macrophages recognized by monoclonal antibody ED2. <i>Immunobiology.</i> 1990 Dec;182(1):88-99. PubMed PMID: 2098324.4. Dijkstra CD, Damoiseaux JG. Macrophage heterogeneity established by immunocytochemistry. <i>Prog Histochem Cytochem.</i> 1993;27(2):1-65. PubMed PMID: 8248543.5. Whiteland JL, Nicholls SM, Shimeld C, Easty DL, Williams NA, Hill TJ. Immunohistochemical detection of T-cell subsets and other leukocytes in paraffin-embedded rat and mouse tissues with monoclonal antibodies. <i>J Histochem Cytochem.</i> 1995 Mar;43(3):313-20. PubMed PMID: 7868861.6. 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, Wang L, Elm MS, Gabazadeh D, Diorio GJ, Eagon PK, et al. Chronic alcohol consumption accelerates fibrosis in response to cerulein-induced pancreatitis in rats. <i>Am J Pathol.</i> 2005 Jan;166(1):93-106. PubMed PMID: 15632003.8. Dorval-Coiffec I, Delcros JG, Hakovirta H, Toppari J, Jégou B, Piquet-Pellorce C. Identification of the leukemia inhibitory factor cell targets within the rat testis. <i>Biol Reprod.</i> 2005 Mar;72(3):602-11. Epub 2004 Nov 10. PubMed PMID: 15537862.9. Fujita, E. et al. (2010) Statin Attenuates Experimental Anti-Glomerular Basement Membrane Glomerulonephritis Together with the Augmentation of Alternatively

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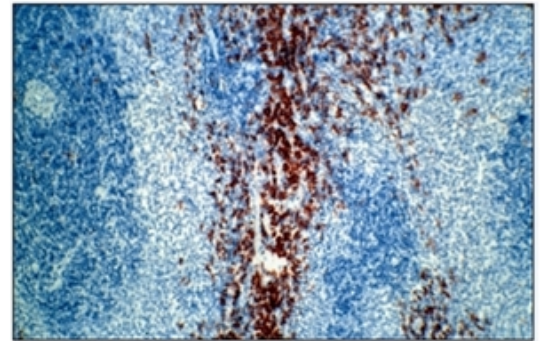
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Pictures:

Staining of ED2 antibody on Rat spleen (frozen section) Cat.-No. BM4001



Staining of acetone fixed, cryostat sectioned Rat spleen with Mouse anti Rat CD163 Cat.-No BM4001

