

PRODUCT INFORMATION



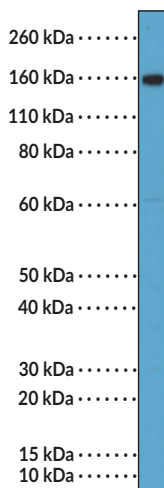
CD163 (N-Term) Rabbit Monoclonal Antibody (Clone RM371)

Item No. 32296

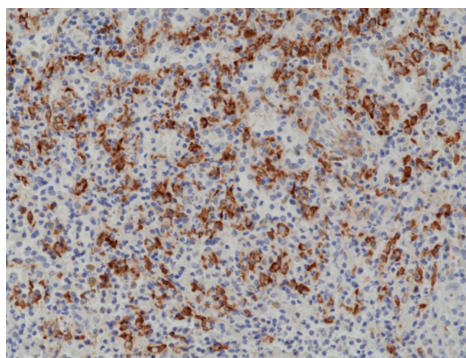
Overview and Properties

Contents:	This vial contains 100 µl of protein A-affinity purified monoclonal antibody.
Immunogen:	Peptide from the N-terminal region of human CD163
Cross Reactivity:	(+) CD163
Species Reactivity:	(+) Human
Form:	Liquid
Storage:	-20°C (as supplied)
Stability:	≥1 year
Storage Buffer:	PBS, with 50% glycerol, 1% BSA, and 0.09% sodium azide
Clone:	RM371
Host:	Rabbit
Isotype:	IgG
Applications:	Immunohistochemistry (IHC) and Western blot (WB); the recommended starting dilution is 1:500-1:1,000 for IHC and 1:1,000-1:2,000 for WB. Other applications were not tested, therefore optimal working concentration/dilution should be determined empirically.

Images



WB of human placenta tissue lysate using CD163 (N-Term) Rabbit Monoclonal Antibody (Clone RM371) at a dilution of 1:2,000.



Immunohistochemical staining of formalin-fixed and paraffin-embedded human spleen tissue using CD163 (N-Term) Rabbit Monoclonal Antibody (Clone RM371) at a dilution of 1:1,000.

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY
Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

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Description

CD163 is a member of the scavenger receptor family that has a role in inflammation.^{1,2} It is composed of an N-terminal ectodomain, which contains nine scavenger receptor cysteine-rich (SRCR) class B domains that mediate protein-protein interactions, a transmembrane segment, and a short cytoplasmic tail.^{1,3} Alternative splicing of the *CD163* pre-mRNA produces several isoforms, including three variants that differ in length of the cytoplasmic tail.³ CD163 is expressed on the surface of monocytes and macrophages and used as a marker of M2 alternatively activated macrophages.¹ CD163 protein levels are increased by hemoglobin, IL-6, IL-10, or glucocorticoids and decreased by LPS, IL-4, TNF- α , or IFN- γ .^{1,4} It binds to and internalizes haptoglobin-hemoglobin (Hp-Hb) complexes, leading to degradation of the Hp-Hb complex and production of anti-inflammatory heme metabolites.¹ A soluble form of CD163 (sCD163), resulting from proteolytic cleavage of membrane-bound CD163, has been found in plasma and other tissue fluids.³ CD163⁺ macrophages in inflamed tissues or plasma sCD163 levels are increased in numerous acute or chronic inflammatory diseases, including sepsis, atherosclerosis, rheumatoid arthritis, and multiple sclerosis.^{1,2} Cayman's CD163 (N-Term) Rabbit Monoclonal Antibody (Clone RM371) can be used for immunohistochemistry (IHC) and Western blot (WB) applications.

References

1. Etzerodt, A. and Moestrup, S.K. CD163 and inflammation: Biological, diagnostic, and therapeutic aspects. *Antioxid. Redox Signal.* **18(17)**, 2352-2363 (2013).
2. Skytthe, M.K., Graversen, J.H., and Moestrup, S.K. Targeting of CD163⁺ macrophages in inflammatory and malignant diseases. *Int. J. Mol. Sci.* **21(15)**, 5497 (2020).
3. Nielsen, M.J., Madsen, M., Møller, H.J., *et al.* The macrophage scavenger receptor CD163: Endocytic properties of cytoplasmic tail variants. *J. Leukoc. Biol.* **79(4)**, 837-845 (2006).
4. Buechler, C., Ritter, M., Orsó, E., *et al.* Regulation of scavenger receptor CD163 expression in human monocytes and macrophages by pro- and antiinflammatory stimuli. *J. Leukoc. Biol.* **67(1)**, 97-103 (2000).

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