ARG22838
anti-CD163 antibody [EDHu-1]

Package: 100 µg
Store at: -20°C

Summary

Product Description	Mouse Monoclonal antibody [EDHu-1] recognizes CD163 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 is not expressed by resting peripheral blood leucocytes but 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.
Tested Reactivity	Hu, Bov, Gpig, Pig, R. Mk, Sheep
Tested Application	ELISA, FACS, ICC/IF, IHC-Fr, IHC-P, WB
Host	Mouse
Clonality	Monoclonal
Clone	EDHu-1
Isotype	IgG1
Target Name	CD163
Species	Human
Immunogen	Leucocytes harvested from the pleural cavity of patients with idiopathic spontaneous pneumothorax
Conjugation	Un-conjugated
Alternate Names	sCD163; M130; Scavenger receptor cysteine-rich type 1 protein M130; MM130; CD antigen CD163; Hemoglobin scavenger receptor

Application Instructions

Application table

Application	Dilution
ELISA	Assay-dependent
FACS	Neat
ICC/IF	Assay-dependent
IHC-Fr	Assay-dependent
IHC-P	Assay-dependent
WB	Assay-dependent

Application Note: FACS: Use 10 µl of the suggested working dilution to label 10^6 cells in 100 µl.
* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.

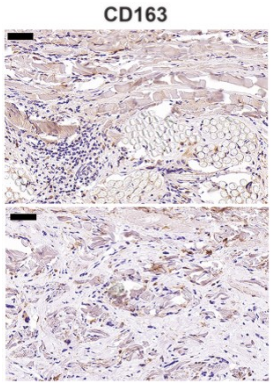
Properties

Form	Liquid
Purification	Purification with Protein A.
Buffer	PBS and 0.09% Sodium azide
Preservative	0.09% Sodium azide
Concentration	1 mg/ml
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C or below. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

Gene Symbol	CD163
Gene Full Name	CD163 molecule
Background	CD163 protein is a member of the scavenger receptor cysteine-rich (SRCR) superfamily, and is exclusively expressed in monocytes and macrophages. It functions as an acute phase-regulated receptor involved in the clearance and endocytosis of hemoglobin/haptoglobin complexes by macrophages, and may thereby protect tissues from free hemoglobin-mediated oxidative damage. This protein may also function as an innate immune sensor for bacteria and inducer of local inflammation. Alternatively spliced transcript variants encoding different isoforms have been described for this gene. [provided by RefSeq, Aug 2011]
Function	CD163: Acute phase-regulated receptor involved in clearance and endocytosis of hemoglobin/haptoglobin complexes by macrophages and may thereby protect tissues from free hemoglobin-mediated oxidative damage. May play a role in the uptake and recycling of iron, via endocytosis of hemoglobin/haptoglobin and subsequent breakdown of heme. Binds hemoglobin/haptoglobin complexes in a calcium-dependent and pH-dependent manner. Exhibits a higher affinity for complexes of hemoglobin and multimeric haptoglobin of HP*1F phenotype than for complexes of hemoglobin and dimeric haptoglobin of HP*1S phenotype. Induces a cascade of intracellular signals that involves tyrosine kinase-dependent calcium mobilization, inositol triphosphate production and secretion of IL6 and CSF1. Isoform 3 exhibits the higher capacity for ligand endocytosis and the more pronounced surface expression when expressed in cells. After shedding, the soluble form (sCD163) may play an anti-inflammatory role, and may be a valuable diagnostic parameter for monitoring macrophage activation in inflammatory conditions. [UniProt]
Highlight	Related products: CD163 antibodies; CD163 ELISA Kits; CD163 Duos / Panels; Anti-Mouse IgG secondary antibodies; Related news: New antibody panels and duos for Tumor immune microenvironment Anti-SerpinB9 therapy, a new strategy for cancer therapy RIP1 activation and pathogenesis of NASH
Research Area	M1/M2/TAM Marker antibody; Macrophage Marker antibody; M2 Macrophage Marker antibody
Calculated Mw	125 kDa
PTM	A soluble form (sCD163) is produced by proteolytic shedding which can be induced by lipopolysaccharide, phorbol ester and Fc region of immunoglobulin gamma. This cleavage is dependent on protein kinase C and tyrosine kinases and can be blocked by protease inhibitors. The shedding is inhibited by the tissue inhibitor of metalloproteinase TIMP3, and thus probably induced by membrane-bound metalloproteinases ADAMs. Phosphorylated.

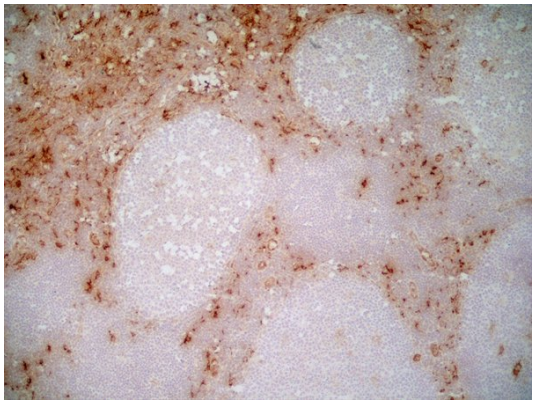
Images



ARG22838 anti-CD163 antibody [EDHu-1] IHC-P image

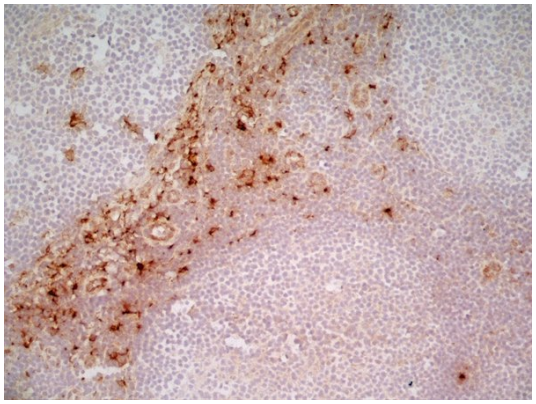
Immunohistochemistry: sheep stained with ARG22838 anti-CD163 antibody [EDHu-1] at 1:150 dilution.

From Aili Wang et al. Int J Artif Organs (2023), doi: 10.1177/03913988231208631, Fig. 6 (a).



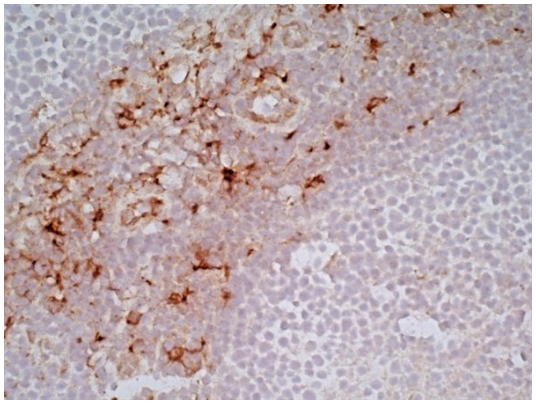
ARG22838 anti-CD163 antibody [EDHu-1] IHC-Fr image

Immunohistochemistry: Human tonsil cryosection stained with ARG22838 anti-CD163 antibody [EDHu-1]. (Low power).



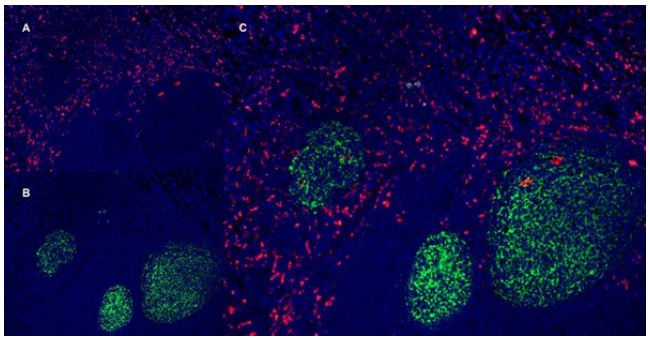
ARG22838 anti-CD163 antibody [EDHu-1] IHC-Fr image

Immunohistochemistry: Human tonsil cryosection stained with ARG22838 anti-CD163 antibody [EDHu-1]. (Medium power).



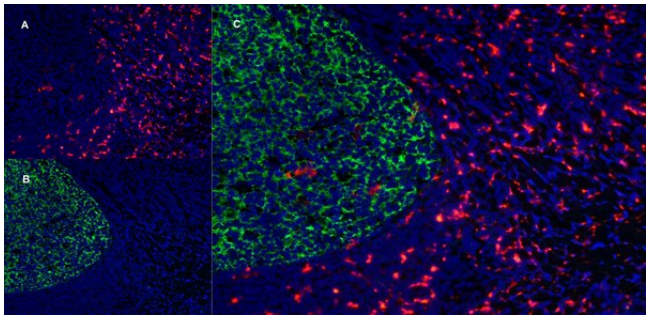
ARG22838 anti-CD163 antibody [EDHu-1] IHC-Fr image

Immunohistochemistry: Human tonsil cryosection stained with ARG22838 anti-CD163 antibody [EDHu-1]. (High power).



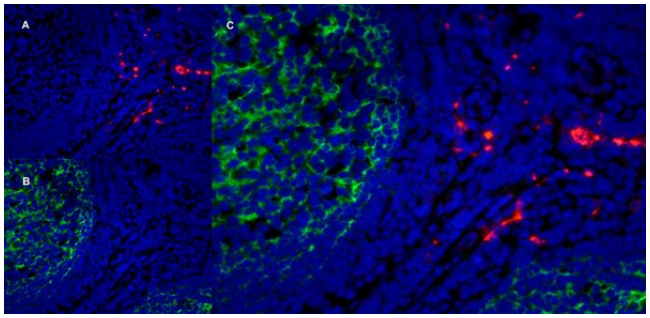
ARG22838 anti-CD163 antibody [EDHu-1] IHC-Fr image

Immunohistochemistry: Human tonsil cryosection stained with ARG22838 anti-CD163 antibody [EDHu-1], red in A and Mouse anti Human CD21 antibody, clone LB21, green in B. C is the merged image with nuclei counterstained blue using DAPI. (Low power).



ARG22838 anti-CD163 antibody [EDHu-1] IHC-Fr image

Immunohistochemistry: Human tonsil cryosection stained with ARG22838 anti-CD163 antibody [EDHu-1], red in A and Mouse anti Human CD21 antibody, clone LB21, green in B. C is the merged image with nuclei counterstained blue using DAPI. (Medium power).



ARG22838 anti-CD163 antibody [EDHu-1] IHC-Fr image

Immunohistochemistry: Human tonsil cryosection stained with ARG22838 anti-CD163 antibody [EDHu-1], red in A and Mouse anti Human CD21 antibody, clone LB21, green in B. C is the merged image with nuclei counterstained blue using DAPI. (High power).