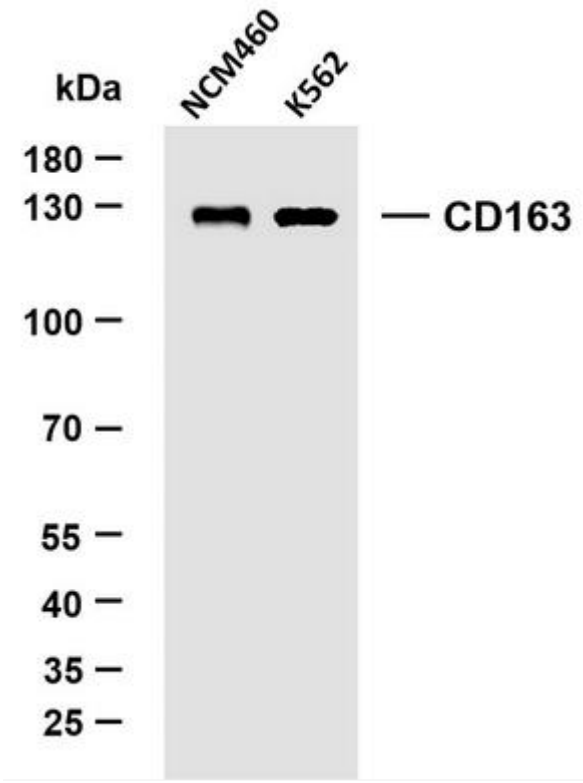
CD163 (ABT-CD163) Mouse mAb

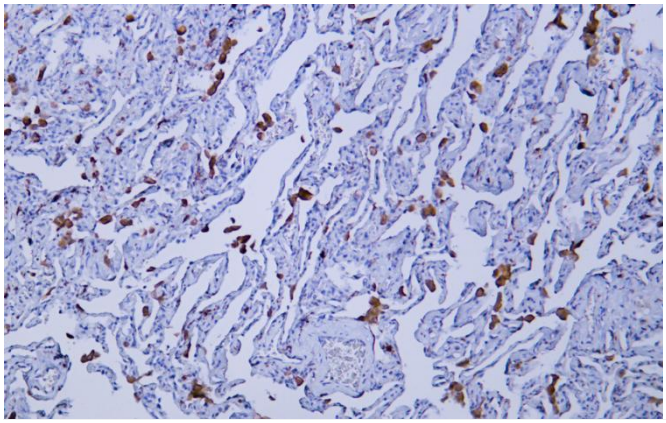
Catalog No	YP-Ab-18931
Isotype	IgG
Reactivity	Human
Applications	IHC,WB,IF,ELISA
Gene Name	CD163 M130
Protein Name	Scavenger receptor cysteine-rich type 1 protein M130 (Hemoglobin scavenger receptor) (CD antigen CD163) [Cleaved into: Soluble CD163 (sCD163)]
Immunogen	Synthesized peptide derived from human CD163 AA range: 1-100
Specificity	The antibody can specifically recognize human CD163 protein.
Formulation	
Source	Monoclonal,Mouse,IgG
Purification	Protein G
Dilution	IHC 1:200-1000; WB 1:500-2000; IF 1:100-500; ELISA 1:1000-5000
Concentration	1 mg/ml
Purity	≥90%
Storage Stability	-20°C/1 year
Synonyms	C163A_HUMAN ; CD 163 ; CD163 ; CD163 antigen ; CD163 molecule ; Hemoglobin scavenger receptor ; M130 ; M130 antigen precursor ; Macrophage associated antigen ; MM130 ; OTTHUMP00000238617 ; OTTHUMP00000238618 ; OTTHUMP00000238619 ; OTTHUMP00000238620 ; SCARI1 ; Scavenger receptor cysteine rich type 1 protein M130 ; sCD163 ; Soluble CD163
Observed Band	125kD
Calculated Molecular Weight	125kD
Cell Pathway	Membranous, Cytoplasmic
Tissue Specificity	
Function	Caution:It is uncertain whether Met-1 or Met-6 is the initiator.,Disease:The soluble form (sCD163) in plasma is a novel parameter in diseases affecting macrophage function and monocyte/macrophage load in the body. The concentration of sCD163 is probably reflecting the number of macrophages of the 'alternative macrophage activation' phenotype with a high CD163 expression playing a major role in dampening the inflammatory response and scavenging components of damaged cells. This has initiated a number of clinical studies for evaluation of

	sCD163 as a disease marker in inflammatory conditions e.g. infection, autoimmune disease, transplantation, atherosclerosis and cancer.,Domain:The SRCR domain 3 mediates calcium-sensitive interaction with hemoglobin/haptoglobin complexes.,Function: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.,Function: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.,induction:Induced by anti-inflammatory mediators such as glucocorticoids, IL6 and IL10; suppressed by proinflammatory mediators like lipopolysaccharide (LPS), Interferon gamma/IFNG, and tumor necrosis factor alpha.,miscellaneous:Intravenous lipopolysaccharide (LPS) produces a rapid rise of sCD163 in plasma of patient as it induces metalloproteinase-mediated shedding from monocytes surface. Long-term LPS infusion finally increases expression of the membrane-bound form on circulating monocytes.,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.,PTM:Phosphorylated.,similarity:Contains 9 SRCR domains.,subcellular location:Isoform 1 and isoform 2 show a lower surface expression when expressed in cells.,subunit:Interacts with CSNK2B.,tissue specificity:Expressed in monocytes and mature macrophages such as Kupffer cells in the liver, red pulp macrophages in the spleen, cortical macrophages in the thymus, resident bone marrow macrophages and meningeal macrophages of the central nervous system. Expressed also in blood. Isoform 1 is the lowest abundant in the blood. Isoform 2 is the lowest abundant in the liver and the spleen. Isoform 3 is the predominant isoform detected in the blood.,
Background	CD163 is a type I membrane protein, and its expression is limited to monocytes / macrophages. Except for the mantle area and germinal center of lymphoid follicles, CD163 protein is expressed in all circulating monocytes and most macrophages, and is more sensitive than CD68 in macrophages and monocytes. It is mainly used for the detection of monocytes and most macrophages. Clinically, synovial macrophages (CD163 positive, CD68 positive) and synovial fibroblasts (CD163 negative, CD68 positive), splenic sinus bank cell hemangioma (CD163 positive) and reactive splenic vascular hyperplasia (CD163 negative) can be distinguished.
matters needing attention	Avoid repeated freezing and thawing!
Usage suggestions	This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.

Products Images



Various whole cell lysates were separated by 10% SDS-PAGE, and the membrane was blotted with anti-CD163 (ABT-CD163) antibody. The HRP-conjugated Goat anti-Mouse IgG(H + L) antibody was used to detect the antibody. Lane 1: NCM460 Lane 2: K562



Human lung tissue was stained with anti-CD163(ABT-CD163) antibody.