

## C163A Rabbit Polyclonal Antibody

### Description

<b>Product type</b>	Primary Antibody
<b>Code</b>	BT-AP00915
<b>Host</b>	Rabbit
<b>Isotype</b>	IgG
<b>Size</b>	100ul, 50ul, 20ul
<b>Immunogen</b>	Synthesized peptide derived from human C163A
<b>Mol wt</b>	127160
<b>Species reactivity</b>	Human, Rat, Mouse
<b>Clonality</b>	Polyclonal
<b>Recommended application</b>	WB, ELISA
<b>Concentration</b>	1 mg/ml
<b>Full name</b>	C163A
<b>Synonyms</b>	C163A; Scavenger receptor cysteine-rich type 1 protein M130; Hemoglobin scavenger receptor; CD antigen CD163; Soluble CD163; sCD163;

**This product is for research use only, not for use in human, therapeutic or diagnostic procedure.**

### Background

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. |The SRCR domain 3 mediates calcium-sensitive interaction with hemoglobin/haptoglobin complexes. |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. |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. |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. |

**Recommended Dilution**

WB: 1: 1000 - 1: 2000

ELISA: 1: 5000 - 1: 20000

Not yet tested in other applications.

**Images**

No images.

**Storage**

-20°C for 1 year

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