

Product datasheet

Anti-CD163 antibody [10D6] ab201461

Overview

Product name	Anti-CD163 antibody [10D6]
Description	Mouse monoclonal [10D6] to CD163
Host species	Mouse
Tested applications	Suitable for: IHC-P
Species reactivity	Reacts with: Human
Immunogen	Recombinant protein encoding of domains 1-4 of the N-terminal region of human CD163.
Epitope	Domains 1 to 4 of the N-terminal region
Positive control	Human placenta tissue.
General notes	This is the concentrated version of ab74604 .

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C.
Purity	Tissue culture supernatant
Clonality	Monoclonal
Clone number	10D6
Isotype	IgG1

Applications

Our [Abpromise guarantee](#) covers the use of **ab201461** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
IHC-P		1/25 - 1/50.

Target

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. 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.
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.
Sequence similarities	Contains 9 SRCR domains.
Domain	The SRCR domain 3 mediates calcium-sensitive interaction with hemoglobin/haptoglobin complexes.
Post-translational modifications	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.
Cellular localization	Secreted and Cell membrane. Isoform 1 and isoform 2 show a lower surface expression when expressed in cells.

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