

## Product datasheet

# Anti-CD163 antibody [10D6], prediluted ab74604

★★★★★ [1 Abreviews](#) [22 References](#) [2 Images](#)

### Overview

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<b>Product name</b>	Anti-CD163 antibody [10D6], prediluted
<b>Description</b>	Mouse monoclonal [10D6] to CD163, prediluted
<b>Host species</b>	Mouse
<b>Specificity</b>	ab74604 may be useful in the localization of monocytes and most macrophage types as well as aiding further study into the function and expression of CD163 antigen itself.
<b>Tested applications</b>	<b>Suitable for:</b> IHC-P
<b>Species reactivity</b>	<b>Reacts with:</b> Human
<b>Immunogen</b>	Recombinant protein encoding of domains 1-4 of the N-terminal region of human CD163.
<b>Epitope</b>	Domains 1 to 4 of the N-terminal region
<b>Positive control</b>	Human placenta tissue.
<b>General notes</b>	<p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&amp;As</p>

### Properties

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

### Applications

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## The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab74604 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)	1/1. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol. Ready to use. Staining of formalin-fixed tissues requires boiling tissue sections in 10mM citrate buffer, pH 6.0, for 10-20 min followed by cooling at RT for 20 min. <b>ab170190</b> - Mouse monoclonal IgG1, is suitable for use as an isotype control with this antibody

## 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.

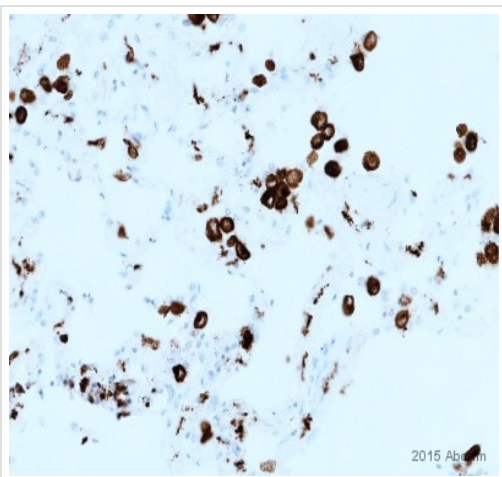
### Post-translational modifications

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.

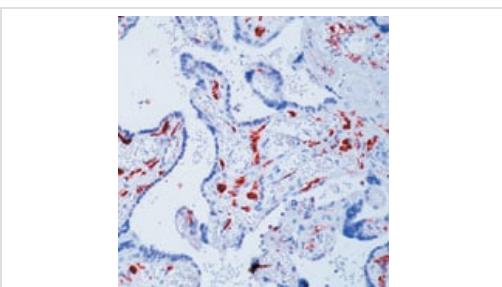
## Images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD163 antibody [10D6], prediluted (ab74604)

This image is courtesy of an anonymous Abreview

ab74604 staining CD163 in human lung tissue sections by Immunohistochemistry (IHC-P - paraformaldehyde-fixed, paraffin-embedded sections). Tissue was fixed with formaldehyde and blocked for 4 minutes at 36°C; antigen retrieval was by heat mediation in EDTA pH 8.0. Samples were incubated with the prediluted primary antibody for 20 minutes at 37°C. An HRP polymer-conjugated goat anti-mouse IgG polyclonal was used as the secondary antibody.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD163 antibody [10D6], prediluted (ab74604)

ab74604 staining CD163 in human placenta by Immunohistochemistry, Formalin-fixed, Paraffin-embedded tissue using peroxidase-conjugate and AEC chromogen. Note membrane staining of monocytes and macrophages

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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