

## Product datasheet

# Anti-CD163 antibody [EPR14643] - C-terminal ab188571

Recombinant **RabMAb**

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### Overview

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<b>Product name</b>	Anti-CD163 antibody [EPR14643] - C-terminal
<b>Description</b>	Rabbit monoclonal [EPR14643] to CD163 - C-terminal
<b>Host species</b>	Rabbit
<b>Tested applications</b>	<b>Suitable for:</b> WB, IHC-P
<b>Species reactivity</b>	<b>Reacts with:</b> Human
<b>Immunogen</b>	Recombinant fragment. This information is proprietary to Abcam and/or its suppliers.
<b>Positive control</b>	Human fetal liver, Human placenta, Human breast cancer and Human spleen lysates; Human liver and Human stomach tissues.
<b>General notes</b>	<p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"><li>- High batch-to-batch consistency and reproducibility</li><li>- Improved sensitivity and specificity</li><li>- Long-term security of supply</li><li>- Animal-free production</li></ul> <p>For more information <a href="#">see here</a>.</p> <p>Our RabMAb<sup>®</sup> technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to <a href="#">RabMAb<sup>®</sup> patents</a>.</p>

### Properties

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<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
<b>Storage buffer</b>	pH: 7.2 Preservative: 0.01% Sodium azide Constituents: 59% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
<b>Purity</b>	Protein A purified
<b>Clonality</b>	Monoclonal
<b>Clone number</b>	EPR14643
<b>Isotype</b>	IgG

## Applications

**The Abpromise guarantee** Our **Abpromise guarantee** covers the use of ab188571 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
WB		1/1000 - 1/2000. Detects a band of approximately 150 kDa (predicted molecular weight: 125 kDa).
IHC-P		1/500. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

## 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.

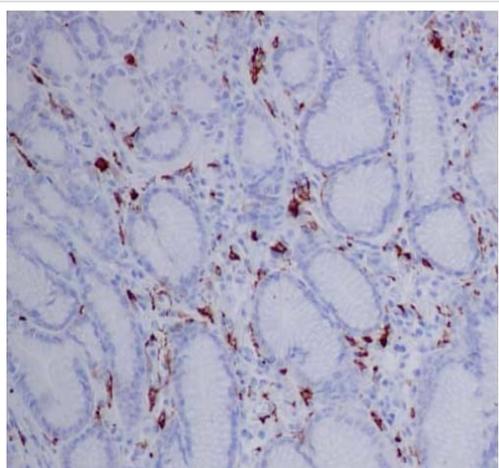
### Post-translational modifications

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.

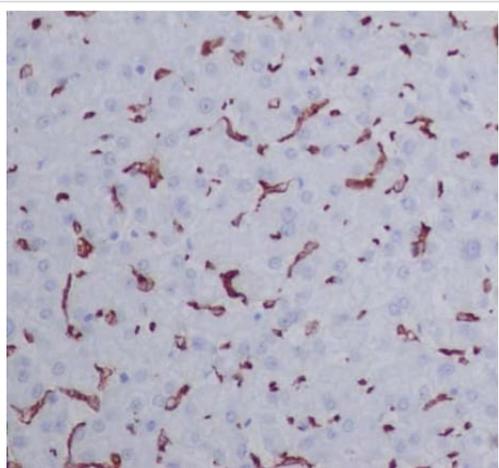
## Images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD163 antibody [EPR14643] - C-terminal (ab188571)

Immunohistochemical analysis of paraffin-embedded Human stomach tissue labeling CD163 with ab188571 at 1/500 with prediluted ImmunoHistoprobe(Ready to use) HRP Polymer for Rabbit IgG as secondary antibody.

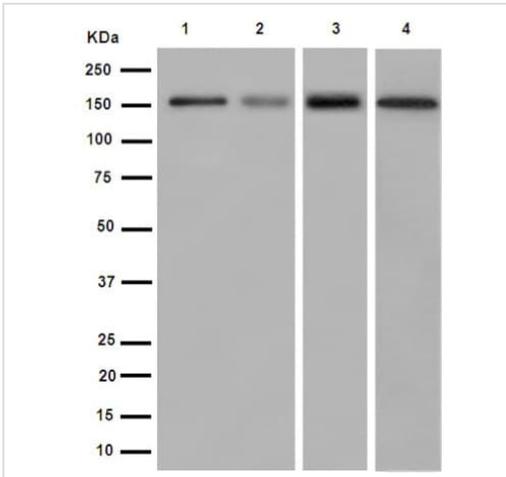
Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD163 antibody [EPR14643] - C-terminal (ab188571)

Immunohistochemical analysis of paraffin-embedded Human liver tissue labeling CD163 with ab188571 at 1/500. A prediluted HRP Polymer for Rabbit IgG was use as the secondary antibody.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Western blot - Anti-CD163 antibody [EPR14643] - C-terminal (ab188571)

**All lanes** : Anti-GIPR antibody - N-terminal (**ab188591**) at 1/1000 dilution

**Lane 1** : Human fetal liver lysate

**Lane 2** : Human placenta lysate

**Lane 3** : Human breast cancer lysate

**Lane 4** : Human spleen lysate

Lysates/proteins at 10 µg per lane.

#### Secondary

**All lanes** : Anti-Rabbit IgG (HRP), specific to the non-reduced form of IgG at 1/500 dilution

**Predicted band size:** 125 kDa

**Observed band size:** 150 kDa

Why choose a recombinant antibody?

**Research with confidence**  
Consistent and reproducible results

**Long-term and scalable supply**  
Recombinant technology

**Success from the first experiment**  
Confirmed specificity

**Ethical standards compliant**  
Animal-free production

Anti-CD163 antibody [EPR14643] - C-terminal (ab188571)

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

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