

Datasheet for ABIN1672779

CD163 ELISA Kit**1** Image[Go to Product page](#)

Overview

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|--------------------------|----------------|
| Quantity: | 96 tests |
| Target: | CD163 |
| Binding Specificity: | AA 41-1045 |
| Reactivity: | Human |
| Method Type: | Sandwich ELISA |
| Detection Range: | 1.56-100 ng/mL |
| Minimum Detection Limit: | 1.56 ng/mL |
| Application: | ELISA |

Product Details

| | |
|-----------------------------|---|
| Purpose: | Sandwich High Sensitivity ELISA kit for Quantitative Detection of Human CD163 |
| Brand: | PicoKine™ |
| Sample Type: | Cell Culture Supernatant, Serum, Plasma (heparin) |
| Analytical Method: | Quantitative |
| Detection Method: | Colorimetric |
| Immunogen: | Expression system for standard: NSO Immunogen sequence: G41-S1045 |
| Specificity: | Expression system for standard: NSO Immunogen sequence: G41-S1045 |
| Cross-Reactivity (Details): | There is no detectable cross-reactivity with other relevant proteins. |

Product Details

Sensitivity: <150pg/mL

Material not included: Microplate reader in standard size. Automated plate washer. Adjustable pipettes and pipette tips. Multichannel pipettes are recommended in the condition of large amount of samples in the detection. Clean tubes and Eppendorf tubes. Washing buffer (neutral PBS or TBS). Preparation of 0.01M TBS: Add 1.2g Tris, 8.5g NaCl

Target Details

Target: CD163

Alternative Name: CD163 ([CD163 Products](#))

Background: Protein 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.

Background: CD163(Cluster of Differentiation 163) is a human protein encoded by the CD163 gene. It has also been shown to mark cells of monocyte/macrophage lineage. CD163, a member of the scavenger receptor cysteine-rich(SRCR) superfamily, is exclusively expressed by monocytes and macrophages. Using FISH, somatic cell hybrid analysis, and radiation hybrid analysis, CD163 gene was mapped the to chromosome 12p13.3. CD163 is upregulated in a large range of diseases inflammatory diseases including type 2 diabetes, macrophage activation sickness, Tangier's disease, reumatoid arthritis etc.

Synonyms: Scavenger receptor cysteine-rich type 1 protein M130,Hemoglobin scavenger receptor,CD163,Soluble CD163,sCD163,CD163,M130,

Full Gene Name: Scavenger receptor cysteine-rich type 1 protein M130

Cellular Localisation: Soluble CD163: Secreted.

Gene ID: 9332

UniProt: [Q86VB7](#)

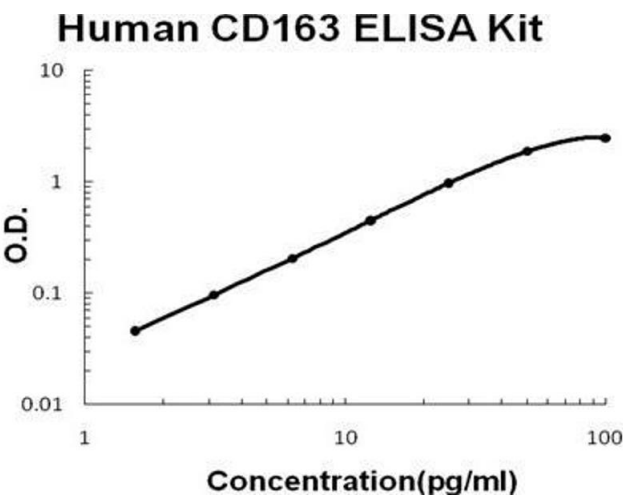
Application Details

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| Application Notes: | Before using Kit, spin tubes and bring down all components to bottom of tube. Duplicate well assay was recommended for both standard and sample testing. |
| Comment: | <p>Sequence similarities: Contains 9 SRCR domains.</p> <p>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.</p> <p>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. .</p> |
| Plate: | Pre-coated |
| Protocol: | human CD163 ELISA Kit was based on standard sandwich enzyme-linked immune-sorbent assay technology. A monoclonal antibody from mouse specific for CD163 has been precoated onto 96-well plates. Standards(NSO, G41-S1045) and test samples are added to the wells, a biotinylated detection polyclonal antibody from goat specific for CD163 is added subsequently and then followed by washing with PBS or TBS buffer. Avidin-Biotin-Peroxidase Complex was added and unbound conjugates were washed away with PBS or TBS buffer. HRP substrate TMB was used to visualize HRP enzymatic reaction. TMB was catalyzed by HRP to produce a blue color product that changed into yellow after adding acidic stop solution. The density of yellow is proportional to the human CD163 amount of sample captured in plate. |
| Assay Procedure: | <p>Aliquot 0.1 mL per well of the 100 ng/mL,50 ng/mL, 25 ng/mL,12.5 ng/mL,6.25 ng/mL,3.13 ng/mL,1.56 ng/mL human CD163 standard solutions into the precoated 96-well plate. Add 0.1 mL of the sample diluent buffer into the control well (Zero well). Add 0.1 mL of each properly diluted sample of human cell culture supernatants, serum or plasma(heparin) to each empty well. See "Sample Dilution Guideline" above for details. We recommend that each human CD163 standard solution and each sample is measured in duplicate.</p> |
| Assay Precision: | <ul style="list-style-type: none">• Sample 1: n=16, Mean(ng/ml): 24, Standard deviation: 1.008, CV(%): 4.2• Sample 2: n=16, Mean(ng/ml): 38.1, Standard deviation: 1.715, CV(%): 4.5• Sample 3: n=16, Mean(ng/ml): 65, Standard deviation: 3.445, CV(%): 5.3,• Sample 1: n=24, Mean(ng/ml): 23, Standard deviation: 1.541, CV(%): 6.7• Sample 2: n=24, Mean(ng/ml): 37.2, Standard deviation: 2.009, CV(%): 5.4• Sample 3: n=24, Mean(ng/ml): 67, Standard deviation: 3.752, CV(%): 5.6 |
| Restrictions: | For Research Use only |

Handling

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| Handling Advice: | Avoid multiple freeze-thaw cycles. |
| Storage: | -20 °C,4 °C |
| Storage Comment: | Store at 4°C for 6 months, at -20°C for 12 months. Avoid multiple freeze-thaw cycles |
| Expiry Date: | 12 months |

Images



ELISA

Image 1. Human CD163 PicoKine ELISA Kit standard curve