Biotin Conjugated Anti-Human CD163 Antibody [PSH13-79] - Detector

HA723568B

Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human
Applications:	ELISA(Det), ELISA
Clone number:	PSH13-79

Description: CD163, also designated M130, is a macrophage-associated antigen that is a member of the scavenger receptor cysteine-rich (SRCR) superfamily. It is highly expressed on macrogphages and to a lesser extent on monocytes. The acute phase-regulated and signal-inducing macrophage protein, CD163, is a receptor that scavenges hemoglobin by mediating endocytosis of haptoglobin-hemoglobin complexes. CD163 binds only haptoglobin and hemoglobin in complex, which indicates the exposure of a receptor-binding neoepitope. The receptor-ligand interaction is calcium-dependent and of high affinity. The existence of several CD163 isoforms, which differ in the structure of their cytoplasmic domains and putative phosphorylation sites, suggests that these isoforms also differ in their signaling mechanism. The gene which encodes CD163 maps to human chromosome 12p13.31.

Conjugate: Biotin-conjugated

Immunogen: Recombinant protein within Human CD163 aa 42-1,050 (HA211143).

Positive control: Recombinant Human CD163 protein (HA211143).

Subcellular location: Cell membrane; Secreted.

Database links: SwissProt: Q86VB7 Human

Recommended Dilutions:

ELISA(Det)
ELISA

Use at an assay dependent concentration. Can be paired for Sandwich ELISA with Rabbit monoclonal [PSH13-78] to Human CD163 antibody (Capture) (HA723566) or Rabbit monoclonal [PSH13-80] to Human CD163 antibody (Capture) (HA723569) and recombinant Human CD163 protein (HA211143) as the standard. The reference range value is 78.1-10,000 pg/mL.
Use at an assay dependent concentration.

Storage Buffer: PBS (pH7.4), 0.1% BSA, 40% Glycerol. Preservative: 0.05% ProClin300.

Storage Instruction: Store at +4℃ after thawing. Aliquot store at -20℃. Avoid repeated freeze / thaw cycles.

Purity: Protein A affinity purified.

Images

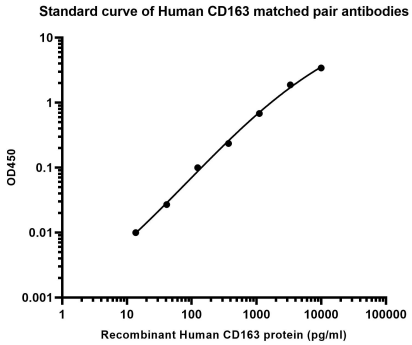

Fig1: Sandwich ELISA analysis of human CD163 matched pair antibodies

Capture: HA723566, Human CD163 Rabbit mAb [PSH13-78]
Detector: HA723567, Human CD163 Rabbit mAb [PSH13-79]

Elisa assay was performed by coating wells of a 96-well plate with 100 µl per well of capture antibody (HA723566) diluted in carbonate/bicarbonate buffer, at a concentration of 2 µg/mL overnight at 4℃. Wells of the plate were washed, blocked with 150 µl 0.05% tween-20 1%BSA blocking buffer, and incubated with serial diluted Recombinant Human CD163 protein (HA211143) starting from 10,000 pg/ml to 0 pg/ml and detect antibody (HA723567, Biotin, 0.2 µg/ml) for 1 hour at 30℃ with shaking. Then the plate was washed and incubated with 100 µl per well of SA-HRP for 0.5 hour at 30℃ with shaking. Detection was performed using an Ultra TMB Substrate for 10 minutes at room temperature in the dark. The reaction was stopped with sulfuric acid and absorbances were read on a spectrophotometer at 450 nm.

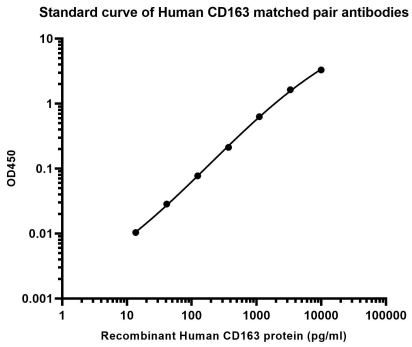

Fig2: Sandwich ELISA analysis of human CD163 matched pair antibodies

Capture: HA723569, Human CD163 Rabbit mAb [PSH13-80]
Detector: HA723567, Human CD163 Rabbit mAb [PSH13-79]

Elisa assay was performed by coating wells of a 96-well plate with 100 µl per well of capture antibody (HA723569) diluted in carbonate/bicarbonate buffer, at a concentration of 2 µg/mL overnight at 4℃. Wells of the plate were washed, blocked with 150 µl 0.05% tween-20 1%BSA blocking buffer, and incubated with serial diluted Recombinant Human CD163 protein (HA211143) starting from 10,000 pg/ml to 0 pg/ml and detect antibody (HA723567, Biotin, 0.2 µg/ml) for 1 hour at 30℃ with shaking. Then the plate was washed and incubated with 100 µl per well of SA-HRP for 0.5 hour at 30℃ with shaking. Detection was performed using an Ultra TMB Substrate for 10 minutes at room temperature in the dark. The reaction was stopped with sulfuric acid and absorbances were read on a spectrophotometer at 450 nm.

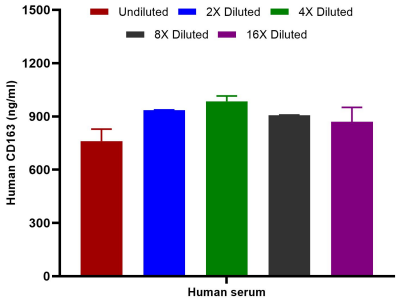

Fig3: Interpolated concentrations of native CD163 in human serum samples.

Capture: HA723566, Human CD163 Rabbit mAb [PSH13-78]
Detector: HA723567, Human CD163 Rabbit mAb [PSH13-79]

The concentrations of CD163 were measured in duplicates, interpolated from the CD163 standard curve and corrected for sample dilution. Undiluted samples are human serum 1%. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean CD163 concentration was determined to be 891.6 ng/ml in human serum.

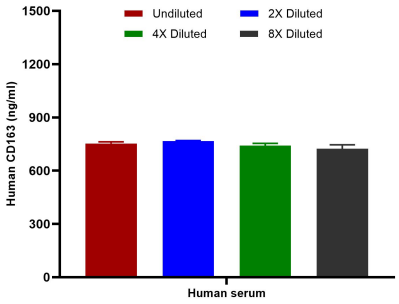

Fig4: Interpolated concentrations of native CD163 in human serum samples.

Capture: HA723569, Human CD163 Rabbit mAb [PSH13-80]
Detector: HA723567, Human CD163 Rabbit mAb [PSH13-79]

The concentrations of CD163 were measured in duplicates, interpolated from the CD163 standard curve and corrected for sample dilution. Undiluted samples are human serum 0.5%. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean CD163 concentration was determined to be 745.9 ng/ml in human serum.

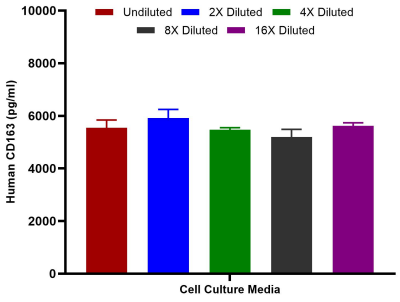

Fig5: Interpolated concentrations of spiked CD163 in human cell culture media samples.

Capture: HA723566, Human CD163 Rabbit mAb [PSH13-78]
Detector: HA723567, Human CD163 Rabbit mAb [PSH13-79]

The concentrations of CD163 were measured in duplicates, interpolated from the CD163 standard curves and corrected for sample dilution. Undiluted samples are as follows: cell culture media 25%. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2).

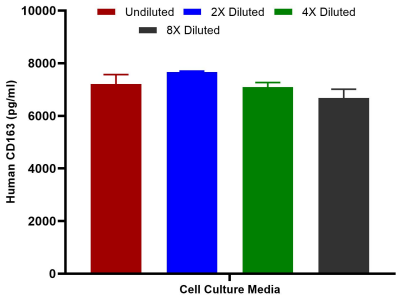

Fig6: Interpolated concentrations of spiked CD163 in human cell culture media samples.

Capture: HA723569, Human CD163 Rabbit mAb [PSH13-80]
Detector: HA723567, Human CD163 Rabbit mAb [PSH13-79]

The concentrations of CD163 were measured in duplicates, interpolated from the CD163 standard curves and corrected for sample dilution. Undiluted samples are as follows: cell culture media 25%. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2).

Background References

1. Mori M et al. CD163(+) Macrophages Induce Endothelial-to-Mesenchymal Transition in Atheroma. Circ Res. 2024 Jul
2. Rowland RRR et al. Role of CD163 in PRRSV infection. Virology. 2024 Dec