

HA724090



Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human
Applications:	ELISA(Cap), ELISA(Det)
Clone number:	PSH19-66

Description: Factor D (EC 3.4.21.46, C3 proactivator convertase, properdin factor D esterase, factor D (complement), complement factor D, CFD, adipsin) is a protein which in humans is encoded by the CFD gene. Factor D is involved in the alternative complement pathway of the complement system where it cleaves factor B. The protein encoded by this gene is a member of the trypsin family of serine proteases secreted by adipocytes into the bloodstream. The encoded protein is a component of the alternative complement pathway best known for its role in humoral suppression of infectious agents. Finally, the encoded protein has a high level of expression in fat, suggesting a role for adipose tissue in immune system biology. Factor D is a serine protease that stimulates glucose transport for triglyceride accumulation in fats cells and inhibits lipolysis.

Immunogen: Recombinant protein within Human CFD aa 26-253 (HA211128).

Positive control: Recombinant Human Complement factor D protein (HA211128).

Subcellular location: Secreted.

Database links: SwissProt: P00746 Human

Recommended Dilutions:

ELISA(Cap) Use at an assay dependent concentration. Can be paired for Sandwich ELISA with Rabbit monoclonal [PSH19-67] to Human Complement factor D antibody (Detector) (HA724091) and Recombinant Human Complement factor D protein (HA211128) as the standard. The reference range value is 39.1-5,000 pg/mL.

ELISA(Det) ELISA(Det): Use at an assay dependent concentration. Can be paired for Sandwich ELISA with Rabbit monoclonal [PSH19-68] to Human Complement factor D antibody (Capture) (HA724092) and Recombinant Human Complement factor D protein (HA211128) as the standard. The reference range value is 39.1-5,000 pg/mL.

Storage Buffer: 1*PBS (pH7.4).

Storage Instruction: Store at 2-8℃. Avoid freeze.

Purity: Protein A affinity purified.

Hangzhou Huaan Biotechnology Co., Ltd.

Orders:0086-571-88062880

Technical:0086-571-89986345

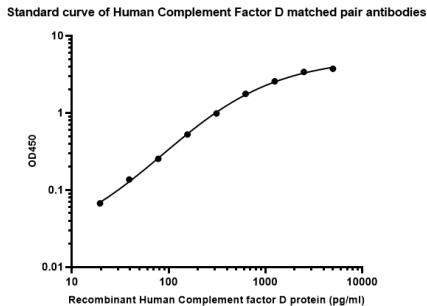
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Images

Fig1: Sandwich ELISA analysis of human Complement Factor D matched pair antibodies

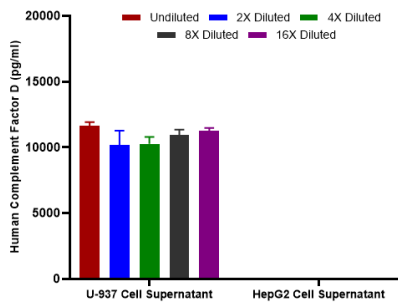
Capture: HA724090, Human Complement factor D Rabbit mAb [PSH19-66]
Detector: HA724091, Human Complement factor D Rabbit mAb [PSH19-67]



Elisa assay was performed by coating wells of a 96-well plate with 100 μ l per well of capture antibody (HA724090) diluted in carbonate/bicarbonate buffer, at a concentration of 2 μ g/mL overnight at 4 $^{\circ}$ C. Wells of the plate were washed, blocked with 150 μ l 0.05% tween-20 1% BSA blocking buffer, and incubated with serial diluted Recombinant Human Complement factor D protein (HA211128) starting from 5,000 pg/ml to 0 pg/ml and detect antibody (HA724091, Biotin, 0.2 μ g/ml) for 1 hour at 30 $^{\circ}$ C with shaking. Then the plate was washed and incubated with 100 μ l per well of SA-HRP for 0.5 hour at 30 $^{\circ}$ C 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: Interpolated concentrations of native Complement Factor D in U-937 and HepG2 cell culture supernatant.

Capture: HA724090, Human Complement factor D Rabbit mAb [PSH19-66]
Detector: HA724091, Human Complement factor D Rabbit mAb [PSH19-67]



The concentrations of Complement Factor D were measured in duplicates, interpolated from the Complement Factor D standard curve and corrected for sample dilution. Undiluted samples are U-937 cell culture supernatant 25% and HepG2 cell culture supernatant 100%. The interpolated dilution factor corrected values are plotted (mean $\pm$ SD, n=2). The mean Complement Factor D concentration was determined to be 10,911 pg/ml in U-937 cell culture supernatant and undetectable in HepG2 cell culture supernatant.

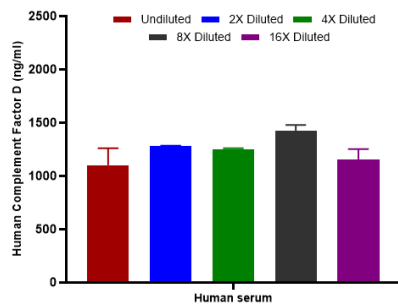


Fig3: Interpolated concentrations of native Complement Factor D in human serum samples.

Capture: HA724090, Human Complement factor D Rabbit mAb [PSH19-66]

Detector: HA724091, Human Complement factor D Rabbit mAb [PSH19-67]

The concentrations of Complement Factor D were measured in duplicates, interpolated from the Complement Factor D standard curve and corrected for sample dilution. Undiluted samples are human serum 0.1%. The interpolated dilution factor corrected values are plotted (mean $\pm$ SD, n=2). The mean Complement Factor D concentration was determined to be 1,242 ng/ml in human serum.

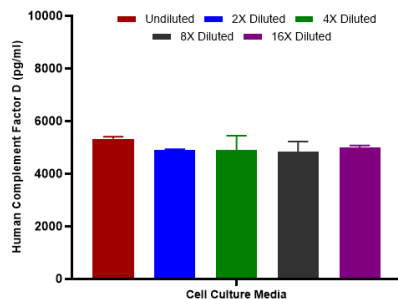


Fig4: Interpolated concentrations of spiked Complement Factor D in human cell culture media samples.

Capture: HA724090, Human Complement factor D Rabbit mAb [PSH19-66]

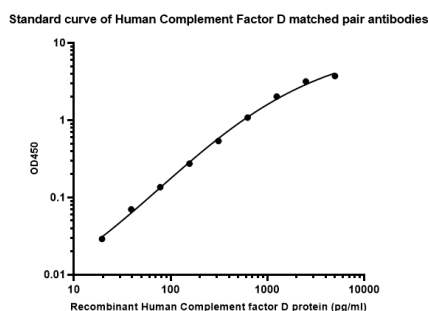
Detector: HA724091, Human Complement factor D Rabbit mAb [PSH19-67]

The concentrations of Complement Factor D were measured in duplicates, interpolated from the Complement Factor D standard curves and corrected for sample dilution. Diluted samples are as follows: 25% cell culture media with FBS. The interpolated dilution factor corrected values are plotted (mean $\pm$ SD, n=2).

Fig5: Sandwich ELISA analysis of human Complement Factor D matched pair antibodies

Capture: HA724092, Human Complement factor D Rabbit mAb [PSH19-68]

Detector: HA724090, Human Complement factor D Rabbit mAb [PSH19-66]



Elisa assay was performed by coating wells of a 96-well plate with 100 μ l per well of capture antibody (HA724092) diluted in carbonate/bicarbonate buffer, at a concentration of 2 μ g/mL overnight at 4°C. Wells of the plate were washed, blocked with 150 μ l 0.05% tween-20 1% BSA blocking buffer, and incubated with serial diluted Recombinant Human Complement factor D protein (HA211128) starting from 5,000 pg/ml to 0 pg/ml and detect antibody (HA724090, Biotin, 0.2 μ g/ml) for 1 hour at 30°C with shaking. Then the plate was washed and incubated with 100 μ l per well of SA-HRP for 0.5 hour at 30°C 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

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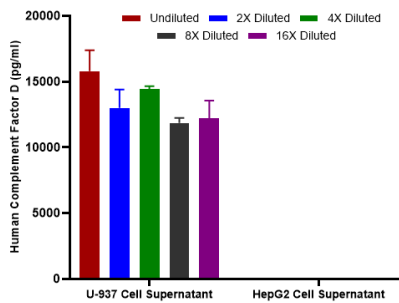


Fig6: Interpolated concentrations of native Complement Factor D in U-937 and HepG2 cell culture supernatant.

Capture: HA724092, Human Complement factor D Rabbit mAb [PSH19-68]
Detector: HA724090, Human Complement factor D Rabbit mAb [PSH19-66]

The concentrations of Complement Factor D were measured in duplicates, interpolated from the Complement Factor D standard curve and corrected for sample dilution. Undiluted samples are U-937 cell culture supernatant 25% and HepG2 cell culture supernatant 100%. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean Complement Factor D concentration was determined to be 13,568 pg/ml in U-937 cell culture supernatant and undetectable in HepG2 cell culture supernatant.

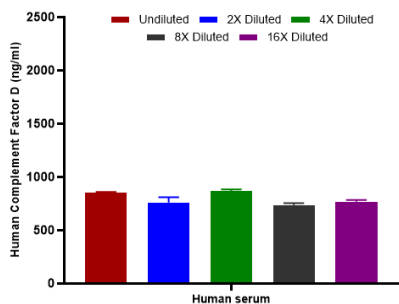


Fig7: Interpolated concentrations of native Complement Factor D in human serum samples.

Capture: HA724092, Human Complement factor D Rabbit mAb [PSH19-68]
Detector: HA724090, Human Complement factor D Rabbit mAb [PSH19-66]

The concentrations of Complement Factor D were measured in duplicates, interpolated from the Complement Factor D 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 Complement Factor D concentration was determined to be 796.7 ng/ml in human serum.

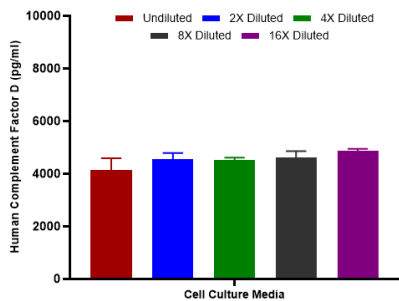


Fig8: Interpolated concentrations of spiked Complement Factor D in human cell culture media samples.

Capture: HA724092, Human Complement factor D Rabbit mAb [PSH19-68]
Detector: HA724090, Human Complement factor D Rabbit mAb [PSH19-66]

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

Note: All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".

Background References

1. Gavrilaki E et al. Novel Insights into Factor D Inhibition. Int J Mol Sci. 2022 Jun
2. Risitano AM et al. Danicopan: an oral complement factor D inhibitor for paroxysmal nocturnal hemoglobinuria. Haematologica. 2021 Dec

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