Anti-CFD Antibody [JE65-08]

HA722364

Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human
Applications:	WB, IF-Cell, IHC-P, IF-Tissue
Molecular Wt:	Predicted band size: 27 kDa
Clone number:	JE65-08

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 54-253 / 253.

Positive control: THP-1 cell lysate, U-937 cell lysate, Human plasma lysate, Human serum lysate, A549 cell lysate, THP-1, human kidney tissue.

Subcellular location: Secreted.

Database links: SwissProt: P00746 Human

Recommended Dilutions:

WB	1:1,000-1:5,000
IF-Cell	1:100
IHC-P	1:1,000--1:5,000
IF-Tissue	1:200-1:1,000

Storage Buffer: 1*TBS (pH7.4), 0.05% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.

Storage Instruction: Shipped at 4℃. Store at +4℃ short term (1-2 weeks). It is recommended to aliquot into single-use upon delivery. Store at -20℃ long term.

Purity: Protein A affinity purified.

Images

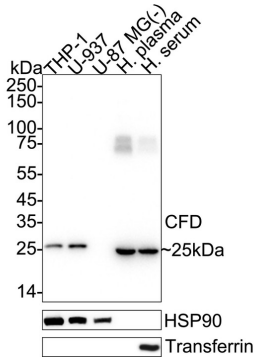

Fig1: Western blot analysis of CFD on different lysates with Rabbit anti-CFD antibody (HA722364) at 1/1,000 dilution.

Lane 1: THP-1 cell lysate (20 µg/Lane)
Lane 2: U-937 cell lysate (20 µg/Lane)
Lane 3: U-87 MG cell lysate (negative) (20 µg/Lane)
Lane 4: Human plasma lysate (40 µg/Lane)
Lane 5: Human serum lysate (40 µg/Lane)

Predicted band size: 27 kDa
Observed band size: 25 kDa

Exposure time: 10 seconds; ECL: K1801;

4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (HA722364) at 1/1,000 dilution was used in primary antibody dilution (K1803) at 4℃ overnight. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1/50,000 dilution was used for 1 hour at room temperature.

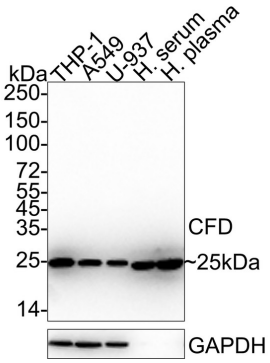

Fig2: Western blot analysis of CFD on different lysates with Rabbit anti-CFD antibody (HA722364) at 1/1,000 dilution.

Lane 1: THP-1 cell lysate (20 µg/Lane)
Lane 2: A549 cell lysate (20 µg/Lane)
Lane 3: U-937 cell lysate (20 µg/Lane)
Lane 4: Human serum lysate (40 µg/Lane)
Lane 5: Human plasma lysate (40 µg/Lane)

Predicted band size: 27 kDa
Observed band size: 25 kDa

Exposure time: 30 seconds; ECL: K1801;

4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (HA722364) at 1/1,000 dilution was used in 5% NFDM/TBST at 4℃ overnight. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1/50,000 dilution was used for 1 hour at room temperature.

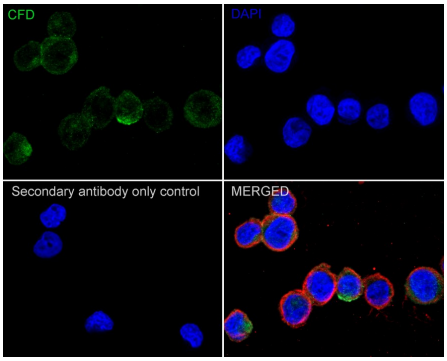

Fig3: Immunocytochemistry analysis of THP-1 cells labeling CFD with Rabbit anti-CFD antibody (HA722364) at 1/100 dilution.

Cells were fixed in 4% paraformaldehyde for 20 minutes at room temperature, permeabilized with 0.1% Triton X-100 in PBS for 5 minutes at room temperature, then blocked with 1% BSA in 10% negative goat serum for 1 hour at room temperature. Cells were then incubated with Rabbit anti-CFD antibody (HA722364) at 1/100 dilution in 1% BSA in PBST overnight at 4 ℃. Goat Anti-Rabbit IgG H&L (iFluor™ 488, HA1121) was used as the secondary antibody at 1/1,000 dilution. PBS instead of the primary antibody was used as the secondary antibody only control. Nuclear DNA was labelled in blue with DAPI.

Beta tubulin (M1305-2, red) was stained at 1/100 dilution overnight at +4℃. Goat Anti-Mouse IgG H&L (iFluor™ 594, HA1126) was used as the secondary antibody at 1/1,000 dilution.

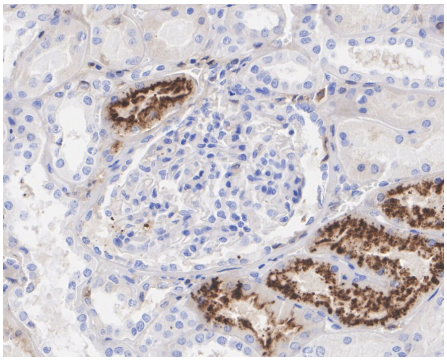

Fig4: Immunohistochemical analysis of paraffin-embedded human kidney tissue with Rabbit anti-CFD antibody (HA722364) at 1/5,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (HA722364) at 1/5,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

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

Background References

1. Gavriilaki 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