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Anti-Factor D Picoband Antibody

Catalog # ABO12925

Product Information

Application	WB, IHC-P, E
Primary Accession	P00746
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for Factor D detection. Tested with WB, IHC-P, Direct ELISA in Human;Mouse;Rat.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Additional Information

Gene ID	1675
Other Names	Complement factor D, 3.4.21.46, Adipsin, C3 convertase activator, Properdin factor D, CFD, DF, PFD
Calculated MW	27033
Application Details	Western blot, 0.1-0.5 □g/ml Immunohistochemistry(Paraffin-embedded Section), 0.5-1 □g/ml Direct ELISA, 0.1-0.5 □g/ml
Subcellular Localization	Secreted.
Source	Eukaryota
Contents	Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na_2HPO_4, 0.05mg NaN_3.
Immunogen	E. coli-derived human Factor D recombinant protein (Position: I26-A253).
Cross Reactivity	No cross reactivity with other proteins.
Storage	At -20˚C; for one year. After r˚Constitution, at 4˚C; for one month. It˚Can also be aliquotted and stored frozen at -20˚C; for a longer time. Avoid repeated freezing and thawing.

Protein Information

Name	CFD (HGNC:2771)
Synonyms	DF, PFD
Function	Serine protease that initiates the alternative pathway of the complement system, a cascade of proteins that leads to phagocytosis and breakdown of pathogens and signaling that strengthens the adaptive immune system (PubMed:21205667, PubMed:22362762, PubMed:6769474, PubMed:874324, PubMed:9748277). In contrast to other complement pathways (classical, lectin and GZMK) that are directly activated by pathogens or antigen-antibody complexes, the alternative complement pathway is initiated by the spontaneous hydrolysis of complement C3 (PubMed:21205667, PubMed:22362762, PubMed:6769474, PubMed:874324). The alternative complement pathway acts as an amplification loop that enhances complement activation by mediating the formation of C3 and C5 convertases (PubMed:21205667, PubMed:22362762, PubMed:6769474, PubMed:874324). Activated CFD cleaves factor B (CFB) when the latter is complexed with complement C3b, activating the C3 convertase of the alternative pathway (PubMed:21205667, PubMed:6769474, PubMed:874324, PubMed:9748277).
Cellular Location	Secreted

Background

Factor D is a protein which in humans is encoded by the CFD gene. The protein encoded by this gene is a member of the trypsin family of peptidases. The encoded protein is a component of the alternative complement pathway best known for its role in humoral suppression of infectious agents. It is also a serine protease that is secreted by adipocytes into the bloodstream. And it stimulates glucose transport for triglyceride accumulation in fats cells and inhibits lipolysis. Finally, the encoded protein has a high level of expression in fat, suggesting a role for adipose tissue in immune system biology.

Images

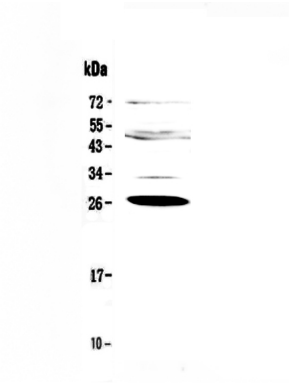
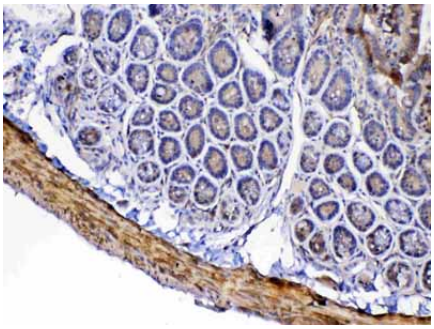


Figure 1. Western blot analysis of Factor D using anti-Factor D antibody (ABO12925). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions. Lane 1: human placenta tissue lysates.After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-Factor D antigen affinity purified polyclonal antibody (Catalog # ABO12925) at 0.5 □¼g/mL overnight at 4 □°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit with Tanon 5200 system. A specific band was detected for Factor D at approximately 27KD. The expected band size for Factor D is at 27KD.

Figure 2. IHC analysis of Factor D using anti-Factor D antibody (ABO12925).Factor D was detected in paraffin-embedded section of mouse small intestine



tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1 □¼g/ml rabbit anti-Factor D Antibody (ABO12925) overnight at 4 □°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 □°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) with DAB as the chromogen.

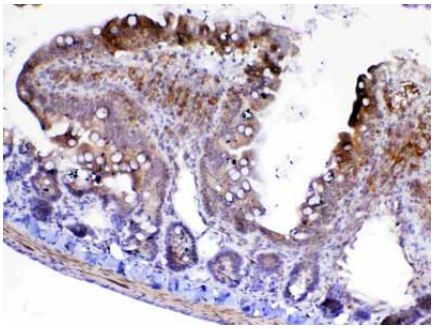


Figure 3. IHC analysis of Factor D using anti-Factor D antibody (ABO12925).Factor D was detected in paraffin-embedded section of rat small intestine tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1 □¼g/ml rabbit anti-Factor D Antibody (ABO12925) overnight at 4 □°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 □°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) with DAB as the chromogen.

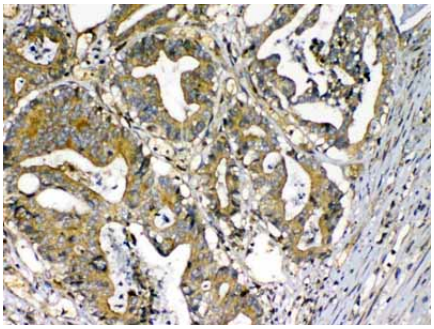


Figure 4. IHC analysis of Factor D using anti-Factor D antibody (ABO12925).Factor D was detected in paraffin-embedded section of human rectal cancer tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1 □¼g/ml rabbit anti-Factor D Antibody (ABO12925) overnight at 4 □°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 □°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) with DAB as the chromogen.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.