

Anti-Factor D Picoband Antibody
Catalog # ABO12925**Specification**

Anti-Factor D Picoband Antibody - 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.

Anti-Factor D Picoband Antibody - Additional Information

Gene ID 1675

Other Names

Complement factor D, 3.4.21.46, Adipsin, C3 convertase activator, Properdin factor D, CFD, DF, PFD

Application Details

Western blot, 0.1-0.5 µg/ml
Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml
Direct ELISA, 0.1-0.5 µg/ml

Subcellular Localization

Secreted.

Contents

Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na₂HPO₄, 0.05mg NaN₃.

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 reconstitution, 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.

Anti-Factor D Picoband Antibody - 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](http://www.uniprot.org/citations/21205667), PubMed:[22362762](http://www.uniprot.org/citations/22362762), PubMed:[6769474](http://www.uniprot.org/citations/6769474), PubMed:[874324](http://www.uniprot.org/citations/874324), PubMed:[9748277](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/21205667), PubMed:[22362762](http://www.uniprot.org/citations/22362762), PubMed:[6769474](http://www.uniprot.org/citations/6769474), PubMed:[874324](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/21205667), PubMed:[22362762](http://www.uniprot.org/citations/22362762), PubMed:[6769474](http://www.uniprot.org/citations/6769474), PubMed:[874324](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/21205667), PubMed:[6769474](http://www.uniprot.org/citations/6769474), PubMed:[874324](http://www.uniprot.org/citations/874324), PubMed:[9748277](http://www.uniprot.org/citations/9748277)).

Cellular Location

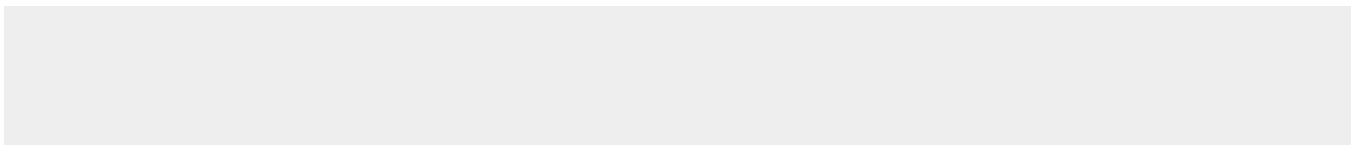
Secreted

Anti-Factor D Picoband Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Anti-Factor D Picoband Antibody - Images



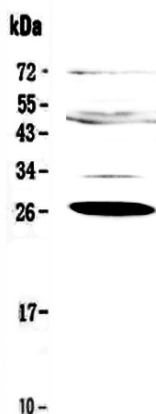


Figure 1. Western blot analysis of Factor D using anti-Factor D antibody (ABO12925). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions. Lane 1: human placenta 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 μ g/mL overnight at 4 $^{\circ}$ 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.

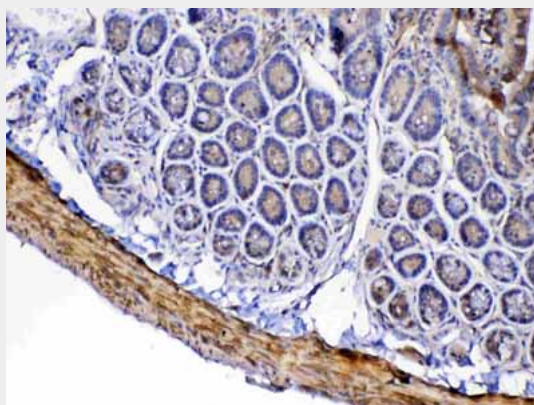


Figure 2. IHC analysis of Factor D using anti-Factor D antibody (ABO12925). Factor D was detected in paraffin-embedded section of mouse small intestine tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1 μ g/ml rabbit anti-Factor D Antibody (ABO12925) overnight at 4 $^{\circ}$ C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 $^{\circ}$ C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) with DAB as the chromogen.

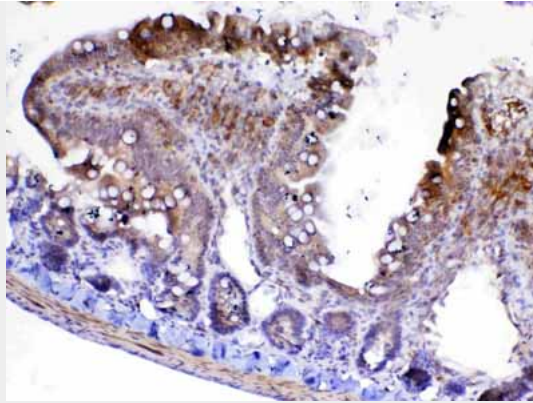


Figure 3. IHC analysis of Factor D using anti-Factor D antibody (ABO12925). Factor D was detected in paraffin-embedded section of rat small intestine tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with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

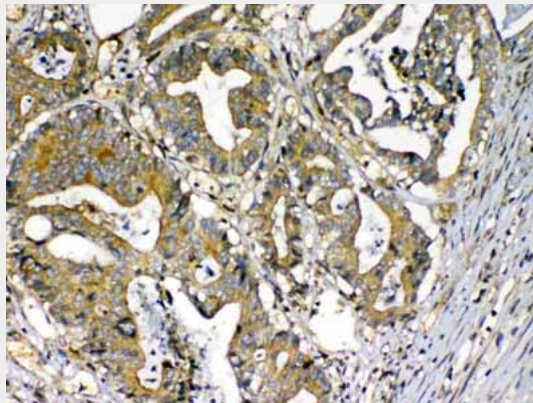


Figure 4. IHC analysis of Factor D using anti-Factor D antibody (ABO12925). Factor D was detected in paraffin-embedded section of human rectal cancer tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with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

Anti-Factor D Picoband Antibody - 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.