

Recombinant Human Complement factor D/CFD Protein

Catalog No.: RP01367 **Recombinant**

Sequence Information

Species	Gene ID	Swiss Prot
Human	1675	P00746

Tags

C-His

Synonyms

CFD;ADIPSIN;ADN;DF;PFD

Product Information

Source	Purification
HEK293 cells	> 95% by SDS-PAGE.

Calculated MW	Observed MW
25.24 kDa	30-35 kDa

Endotoxin

<0.1EU/μg

Formulation

Lyophilized from a 0.22 μm filtered solution of PBS, pH 7.4.

Reconstitution

Centrifuge the vial before opening. Reconstitute to a concentration of 0.1-0.5 mg/mL in sterile distilled water. Avoid vortex or vigorously pipetting the protein. For long term storage, it is recommended to add a carrier protein or stabilizer (e.g. 0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose), and aliquot the reconstituted protein solution to minimize free-thaw cycles.

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Background

Complement factor D, also known as Adipsin, C3 convertase activator, Properdin factor D and CFD is a secreted protein which belongs to the peptidase S1 family. CFD/Adipsin contains one peptidase S1 domain. Complement factor D (CFD/Adipsin) is a component of the alternative complement pathway best known for its role in humoral suppression of infectious agents. Complement factor D (CFD/Adipsin) has a high level of expression in fat, suggesting a role for adipose tissue in immune system biology. This protein is also a serine protease that is secreted by adipocytes into the bloodstream. Complement factor D (CFD/Adipsin) cleaves factor B when the latter is complexed with factor C3b, activating the C3bbb complex, which then becomes the C3 convertase of the alternate pathway. Its function is homologous to that of C1s in the classical pathway. Complement factor D (CFD/Adipsin) is a serine protease that stimulates glucose transport for triglyceride accumulation in fats cells and inhibits lipolysis. Defects in CFD/Adipsin are the cause of complement factor D deficiency (CFD deficiency) which predisposes to invasive meningococcal disease.

Basic Information

Description

Recombinant Human Complement factor D/CFD Protein is produced by HEK293 cells expression system. The target protein is expressed with sequence (Ile26-Ala253) of human CFD/Adipsin/PFD (Accession #NP_001919.2.) fused with a 6×His tag at the C-terminus.

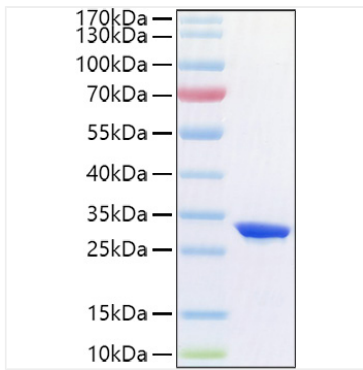
Bio-Activity

Measured by its ability to cleave a colorimetric peptide substrate, N-carbobenzyloxy-Lys-ThioBenzyl ester (Z-Lys-SBzl), in the presence of 5,5'-Dithio-bis (2-nitrobenzoic acid) (DTNB). The specific activity is >452.49 pmol/min/μg.

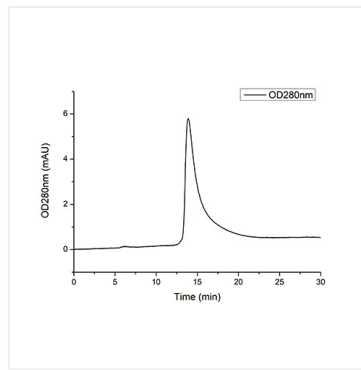
Storage

Store at -20°C. Store the lyophilized protein at -20°C to -80 °C up to 1 year from the date of receipt. After reconstitution, the protein solution is stable at -20°C for 3 months, at 2-8°C for up to 1 week. Avoid repeated freeze/thaw cycles.

Validation Data



Recombinant Human Complement factor D/CFD Protein was determined by SDS-PAGE with Coomassie Blue, showing a band at 33kDa.



The purity of Human CFD/Adipsin/PFD Protein (Cat.RP01367) was greater than 95% as determined by SEC-HPLC.