Recombinant Human Complement factor D/CFD Protein

Catalog No.: RP01367

Sequence Information

Species
Human

Gene ID
1675

Swiss Prot
P00746

Tags
C-His

Synonyms
CFD,ADIPSIN,ADN,DF,PFD

Product Information

Source
HEK293 cells

Purification
≥ 95 % as determined by SDS-PAGE;≥95 % as determined by HPLC.

Calculated MW
25.24 kDa

Observed MW
30-35 kDa

Endotoxin
< 0.1 EU/μg of the protein by LAL method.

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 stablizer (e.g. 0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose), and aliquot the reconstituted protein solution to minimize free-thaw cycles.

Background

Complement factor D, also known as Adipsin, C3 convertase activator, Properdin factor D and CFD is a secreted protein which belongs to thepeptidase S1 family. CFD/Adipsin contains onepeptidase 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.

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.

Shipping
Lyophilized proteins are shipped at ambient temperature.
Liquid proteins are shipped at frozen temperature with dry ice.
Upon receipt, store it immediately at the temperature recommended below.

Storage
Store at -20℃

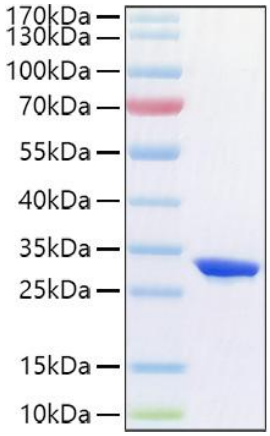
Operational Notes
For your safety and health, please wear a lab coat and disposable gloves for handling.

Contact

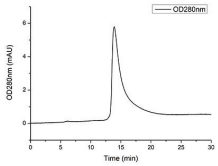
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Validation Data



Recombinant Human Complement factor D/CFD Protein was determined by SDS-PAGE under reducing conditions with Coomassie Blue.



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