



### Synonym

CFD, Adipsin, PFD, DF, Complement factor D

### Source

Rhesus macaque / Cynomolgus Complement Factor D, His Tag (CFD-R52H3) is expressed from human 293 cells (HEK293). It contains AA Ile 26 - Ala 253 (Accession # [H9EXC1-1](#)). In the region Ile 26 - Ala 253, the AA sequence of Rhesus macaque and Cynomolgus Complement Factor D are homologous. Predicted N-terminus: Ile 26

### Molecular Characterization

CFD(Ile 26 - Ala 253)  
H9EXC1-1 Poly-his

This protein carries a polyhistidine tag at the C-terminus.

The protein has a calculated MW of 26.5 kDa. The protein migrates as 25-27 kDa under non-reducing (NR) condition (SDS-PAGE) due to glycosylation.

### Endotoxin

Less than 1.0 EU per  $\mu\text{g}$  by the LAL method / rFC method.

### Purity

>90% as determined by SDS-PAGE.

### Formulation

Lyophilized from 0.22  $\mu\text{m}$  filtered solution in 50 mM Tris, 150 mM NaCl, pH8.0 with glycerol as protectant.

Contact us for customized product form or formulation.

### Reconstitution

Please see Certificate of Analysis for specific instructions.

*For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.*

### Storage

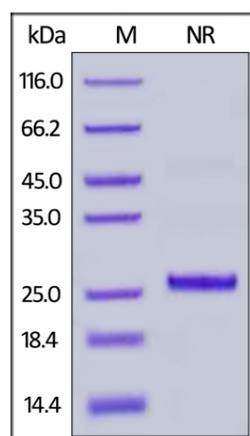
For long term storage, the product should be stored at lyophilized state at  $-20^{\circ}\text{C}$  or lower.

*Please avoid repeated freeze-thaw cycles.*

This product is stable after storage at:

- $-20^{\circ}\text{C}$  to  $-70^{\circ}\text{C}$  for 12 months in lyophilized state;
- $-70^{\circ}\text{C}$  for 3 months under sterile conditions after reconstitution.

### SDS-PAGE



Rhesus macaque / Cynomolgus Complement Factor D, His Tag on SDS-PAGE under non-reducing (NR) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90%.

### Bioactivity

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 >40 pmol/min/ $\mu\text{g}$  (QC tested).

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## Background

Complement factor D (CFD) is also known as Adipsin, C3 convertase activator, Properdin factor D (PFD), which contains one peptidase S1 domain and belongs to the peptidase S1 family. 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. 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 which predisposes to invasive meningococcal disease.

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