

Human Complement Factor D/CFD Protein

Cat. No. CFD-HM101

Description

Source	Recombinant Human Complement Factor D/CFD Protein is expressed from HEK293 with His tag at the C-Terminus. It contains Ile26-Ala253.
Accession	P00746-1
Molecular Weight	The protein has a predicted MW of 25.5 kDa. Due to glycosylation, the protein migrates to 26-27 kDa based on Bis-Tris PAGE result.
Endotoxin	Less than 1EU per μg by the LAL method.
Purity	> 95% as determined by Bis-Tris PAGE > 95% as determined by HPLC

Formulation and Storage

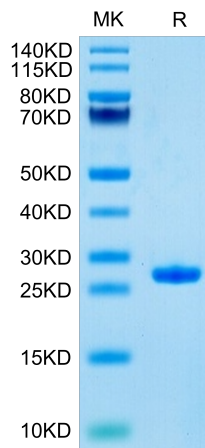
Formulation	Lyophilized from 0.22 μm filtered solution in PBS (pH 7.4). Normally 8% trehalose is added as protectant before lyophilization.
Reconstitution	Centrifuge the tube before opening. Reconstituting to a concentration more than 100 $\mu\text{g}/\text{ml}$ is recommended. Dissolve the lyophilized protein in distilled water.
Storage	-20 to -80°C for 12 months as supplied from date of receipt. -80°C for 3 months after reconstitution. Recommend to aliquot the protein into smaller quantities for optimal storage. Please minimize freeze-thaw cycles.

Background

Complement factor D is a serine protease essential for the activation of the alternative pathway and is expressed in the kidney, adipocytes, and macrophages. Factor D is found at relatively high levels in glomeruli suggesting that this component of the complement cascade could influence renal pathophysiology. Complement factor D or alternative pathway activation is needed to prevent spontaneous accumulation of C3 and IgM deposits within the mesangium.

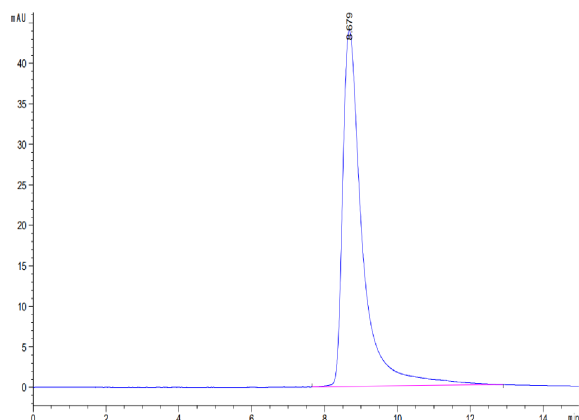
Assay Data

Bis-Tris PAGE



Human Complement Factor D on Bis-Tris PAGE under reduced condition. The purity is greater than 95%.

SEC-HPLC



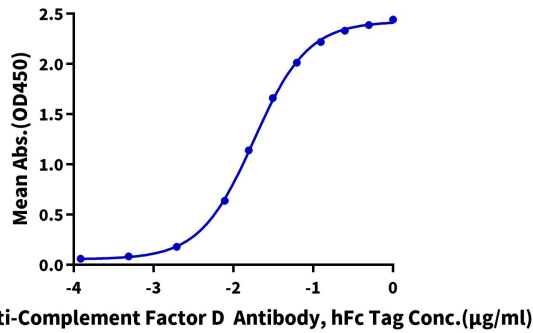
The purity of Human Complement Factor D is greater than 95% as determined by SEC-HPLC.

Assay Data

ELISA Data

Human Complement Factor D, His Tag ELISA

0.1µg Human Complement Factor D, His Tag Per Well



Immobilized Human Complement Factor D, His Tag at 1µg/ml (100µl/Well) on the plate. Dose response curve for Anti-Complement Factor D Antibody, hFc Tag with the EC50 of 18.1ng/ml determined by ELISA (QC Test).

Bioactivity Data

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 >70 pmoles/min/µg (QC Test).