



# Synonym

Complement C3,CPAMD1

## Source

Human Complement component 3 Protein, Fc Tag(CO3-H5253) is expressed from human 293 cells (HEK293). It contains AA Ser 23 - Asn 1663 (Accession # <u>P01024-1</u> ).

Predicted N-terminus: Ser 23

# **Molecular Characterization**

Complement C3(Ser 23 - Asn 1663) Fc(Pro 100 - Lys 330) P01024-1 P01857

This protein carries a human IgG1 Fc tag at the C-terminus.

The protein has a calculated MW of 211.4 kDa. The protein migrates as 75-80 kDa,160-180 kDa and >180 kDa when calibrated against Star Ribbon Prestained Protein Marker under reducing (R) condition (SDS-PAGE) due to glycosylation.

## Endotoxin

Less than 1.0 EU per µg by the LAL method.

## **Purity**

>90% as determined by SDS-PAGE.

## **Formulation**

Lyophilized from 0.22 µm filtered solution in PBS, pH7.4 with trehalose 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

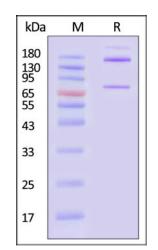
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

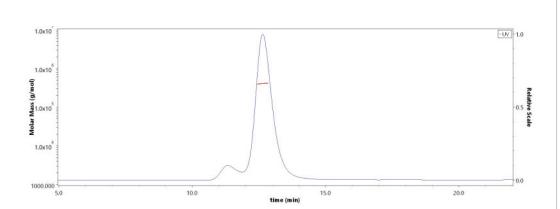
# **SDS-PAGE**



Human Complement component 3 Protein, Fc Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90% (With Star Ribbon Pre-stained Protein Marker).

# **Bioactivity-ELISA**

# SEC-MALS



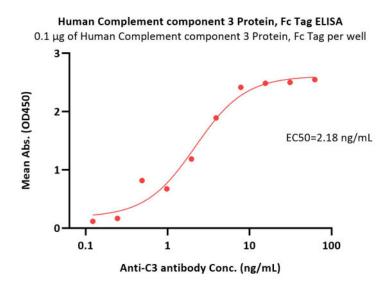
The purity of Human Complement component 3 Protein, Fc Tag (Cat. No. CO3-H5253) is more than 85% and the molecular weight of this protein is around 390-440 kDa verified by SEC-MALS.

<u>Report</u>

# **Human Complement component 3 Protein, Fc Tag (MALS verified)**







Immobilized Human Complement component 3 Protein, Fc Tag (Cat. No. CO3-H5253) at 1  $\mu$ g/mL (100  $\mu$ L/well) can bind Anti-C3 antibody with a linear range of 0.1-4 ng/mL (QC tested).

## Background

C3 is the major complement component serum. It is mainly synthesized by macrophages and liver. C3 plays a central role in the activation of the complement system. Its processing by C3 convertase is the central reaction in both classical and alternative complement pathways. It is cleaved into two fragments, C3a and C3b. C3a anaphylatoxin is a mediator of local inflammatory process. In chronic inflammation, acts as a chemoattractant for neutrophils. After activation C3b can bind covalently, via its reactive thioester, to cell surface carbohydrates or immune aggregates. It induces the contraction of smooth muscle, increases vascular permeability and causes histamine release from mast cells and basophilic leukocytes.

# **Clinical and Translational Updates**

