



## Synonym

Complement C5, C5, CPAMD4

## Source

Cynomolgus Complement C5, His Tag(CO5-C52Hx) is expressed from human 293 cells (HEK293). It contains AA Gln 19 - Arg 677 & Met 678 - Cys 1676 (Accession # [XP\\_005580972.1](#)).

Predicted N-terminus: Gln 19 ( $\beta$  chain) & Met 678 ( $\alpha$  chain)

## Molecular Characterization

Complement C5(Gln 19 - Cys 1676)	Poly-his
XP_005580972.1	

This protein carries a polyhistidine tag at the C-terminus. The mature form of Complement C5 is a disulfide-linked heterodimer composed of proteolytically cleaved  $\alpha$  and  $\beta$  chain. Each  $\alpha$  and  $\beta$  chain has a calculated MW of 73.9 kDa ( $\beta$  chain) and 114.9 kDa ( $\alpha$  chain). The protein migrates as 65 kDa and 113 kDa when calibrated against [Star Ribbon Pre-stained Protein Marker](#) under reducing (R) condition (SDS-PAGE) due to glycosylation.

## Endotoxin

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

## Purity

>95% as determined by SDS-PAGE.

## Formulation

Lyophilized from 0.22  $\mu$ m 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

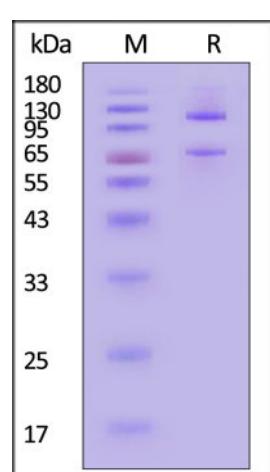
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

*Please avoid repeated freeze-thaw cycles.*

This product is stable after storage at:

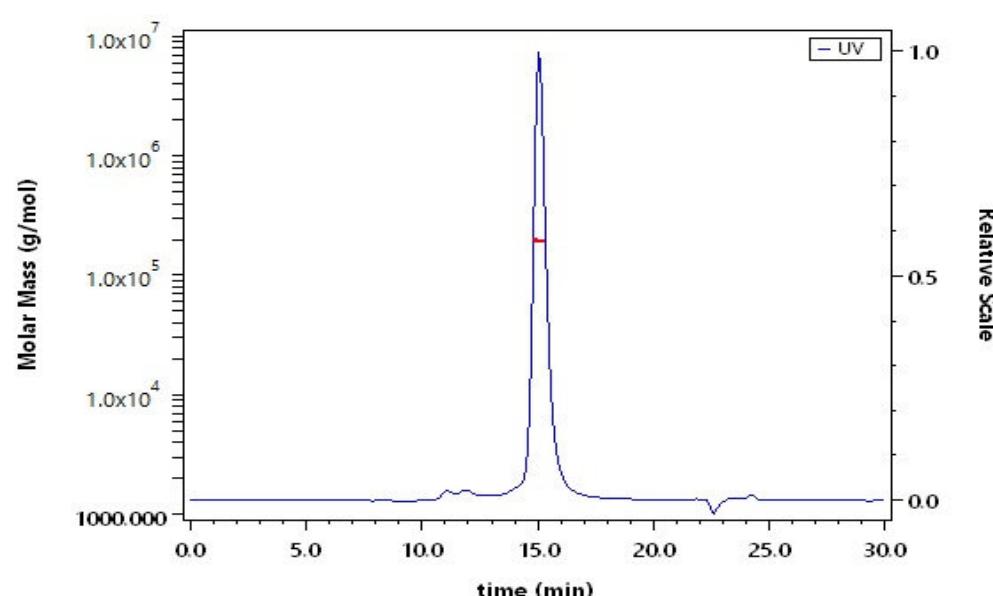
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

## SDS-PAGE



Cynomolgus Complement C5, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95% (With [Star Ribbon Pre-stained Protein Marker](#)).

## SEC-MALS



The purity of Cynomolgus Complement C5, His Tag (Cat. No. CO5-C52Hx) is more than 85% and the molecular weight of this protein is around 175-215 kDa verified by SEC-MALS.

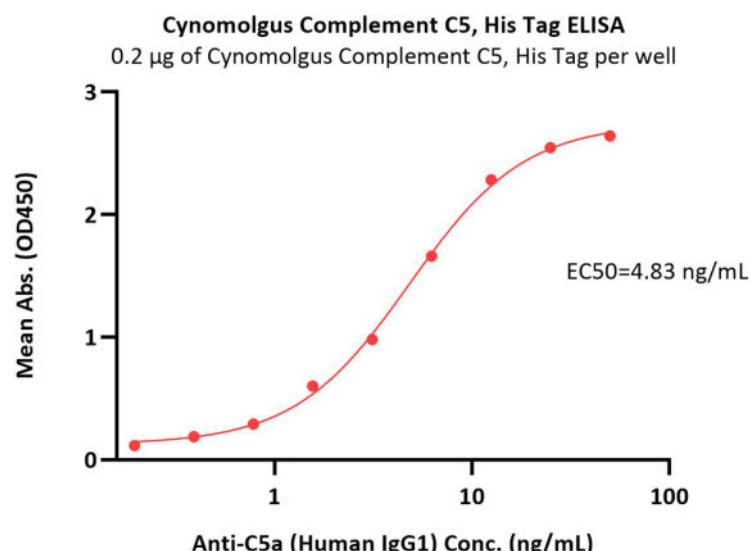
[Report](#)

## Bioactivity-ELISA

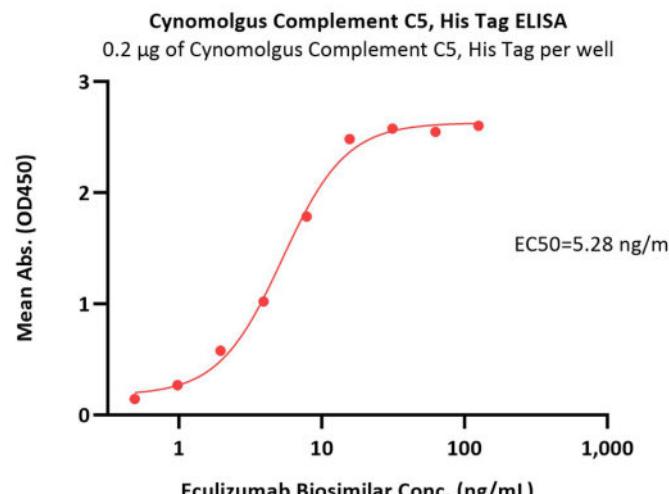
Discounts, Gifts,  
and more!



» [www.acrobiosystems.com](http://www.acrobiosystems.com)



Immobilized Cynomolgus Complement C5, His Tag (Cat. No. CO5-C52Hx) at 2 µg/mL (100 µL/well) can bind Anti-C5a (Human IgG1) with a linear range of 0.4-6 ng/mL (QC tested).



Immobilized Cynomolgus Complement C5, His Tag (Cat. No. CO5-C52Hx) at 2 µg/mL (100 µL/well) can bind Eculizumab Biosimilar with a linear range of 0.5-31 ng/mL (Routinely tested).

## Background

Derived from proteolytic degradation of complement C5, C5 anaphylatoxin is a mediator of local inflammatory process. C5 precursor is first processed by the removal of 4 basic residues, forming two chains, beta and alpha, linked by a disulfide bond. C5 convertase activates C5 by cleaving the alpha chain, releasing C5a anaphylatoxin and generating C5b (beta chain + alpha' chain). Activation of C5 by a C5 convertase initiates the spontaneous assembly of the late complement components, C5-C9, into the membrane attack complex. C5b has a transient binding site for C6. The C5b-C6 complex is the foundation upon which the lytic complex is assembled. The C5a anaphylatoxin interacts with C5AR1 and tick complement inhibitor. C5a is also a potent chemokine which stimulates the locomotion of polymorphonuclear leukocytes and directs their migration toward sites of inflammation.

Discounts, Gifts,  
and more!

