

Synonym

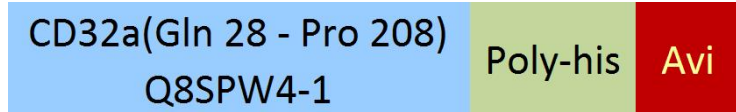
CD32a,FCGR2A,CD32,FCG2 ,FCGR2A1,IGFR2

Source

Biotinylated Cynomolgus CD32a, His,Avitag(CDA-C82E5) is expressed from human 293 cells (HEK293). It contains AA Gln 28 - Pro 208 (Accession # [Q8SPW4-1](#)).

Predicted N-terminus: Gln 28

Molecular Characterization



This protein carries a polyhistidine tag at the C-terminus, followed by an Avi tag (Avitag™)

The protein has a calculated MW of 23.9 kDa. The protein migrates as 30-33 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

Labeling

Biotinylation of this product is performed using Avitag™ technology. Briefly, the single lysine residue in the Avitag is enzymatically labeled with biotin.

Protein Ratio

Passed as determined by the HABA assay / binding ELISA.

Endotoxin

Less than 1.0 EU per µg by the LAL method.

Purity

>95% 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

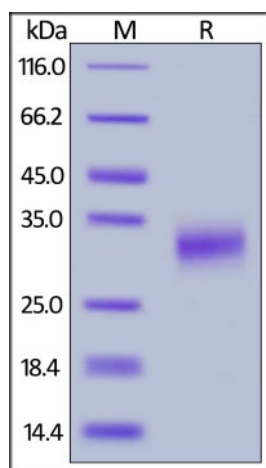
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

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 12 months under sterile conditions after reconstitution.

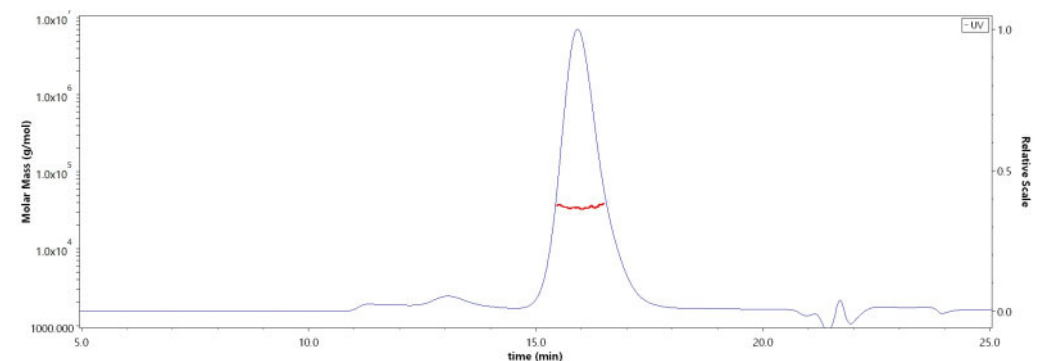
SDS-PAGE



Biotinylated Cynomolgus CD32a, His,Avitag on SDS-PAGE under reducing (R) condition. The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 95%.

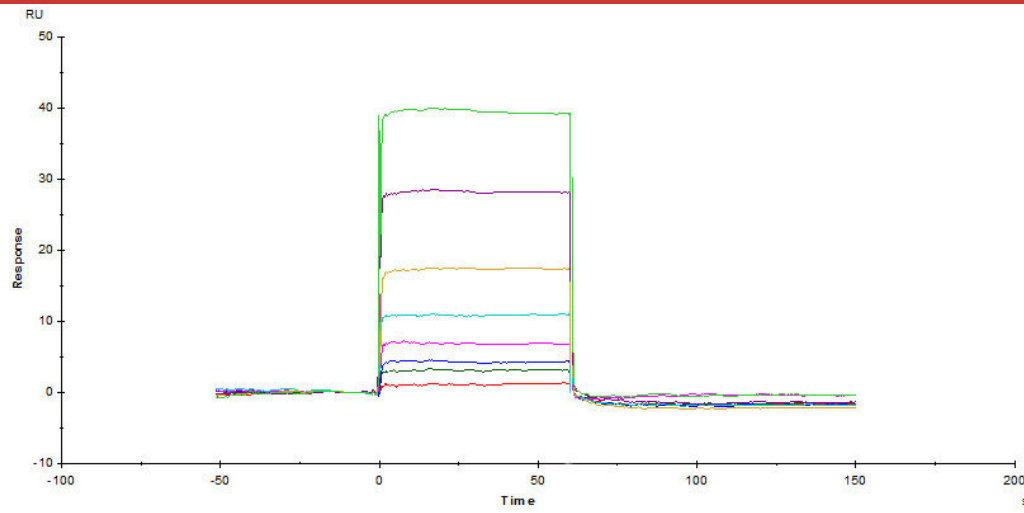
Bioactivity-SPR

SEC-MALS



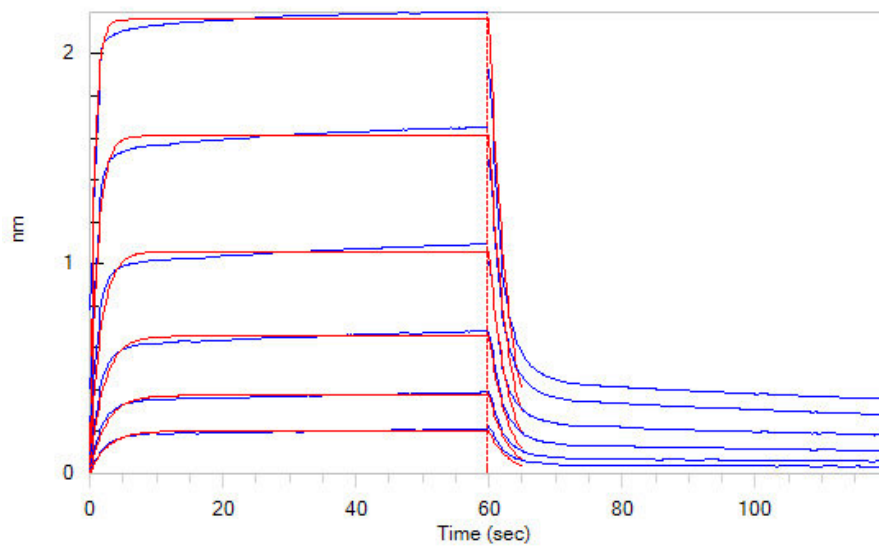
The purity of Biotinylated Cynomolgus CD32a, His,Avitag (Cat. No. CDA-C82E5) is more than 85% and the molecular weight of this protein is around 30-40 kDa verified by SEC-MALS.

[Report](#)



Captured Biotinylated Cynomolgus CD32a, His,Avitag (Cat. No. CDA-C82E5) on Biotin CAP - Series S sensor Chip can bind MabThera® (Rituximab) with an affinity constant of 7.55 μM as determined in a SPR assay (Biacore T200) (QC tested).

Bioactivity-BLI



Loaded Biotinylated Cynomolgus CD32a, His,Avitag (Cat. No. CDA-C82E5) on SA Biosensor, can bind MabThera® (Rituximab) with an affinity constant of 2 μM as determined in BLI assay (ForteBio Octet Red96e) (Routinely tested).

Background

Receptors for the Fc region of IgG (Fc γ R) are members of the Ig superfamily that function in the activation or inhibition of immune responses. Three classes of human Fc γ Rs: RI (CD64), RII (CD32), and RIII (CD16), which generate multiple isoforms, are recognized.

There are three genes for human Fc γ RII /CD32 (A, B, and C) and one for mouse Fc γ RII B (CD32B). CD32 is a low affinity receptor for IgG. The activating isoform, CD32A, is expressed on monocytes, neutrophils, platelets and dendritic cells. CD32A is expressed on many immune cell types (macrophage, neutrophil, eosinophils, platelets, dendritic cells and Langerhan cells), where inhibitory ITIMbearing receptors may also be coexpressed and coengaged by specific ligands. CD32A delivers an activating signal upon ligand binding, and results in the initiation of inflammatory responses including cytolysis, phagocytosis, degranulation and cytokine production. The responses can be modulated by signals from the coexpressed inhibitory receptors such as CD32B, and the strength of the signal is dependent on the ratio of expression of the activating and inhibitory receptors.

Clinical and Translational Updates

Please contact us via TechSupport@acrobiosystems.com if you have any question on this product.