

**Synonym**

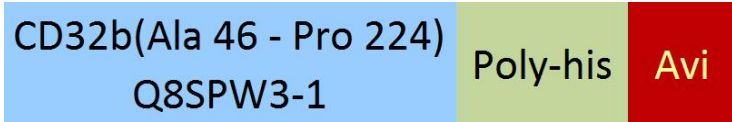
FCGR

**Source**

Biotinylated Cynomolgus CD32b, His,Avitag(CDB-C82E4) is expressed from human 293 cells (HEK293). It contains AA Ala 46 - Pro 224 (Accession # [Q8SPW3-1](#)).

Predicted N-terminus: Ala 46

**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 23.6 kDa. The protein migrates as 30-35 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.

>90% as determined by SEC-MALS.

**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**

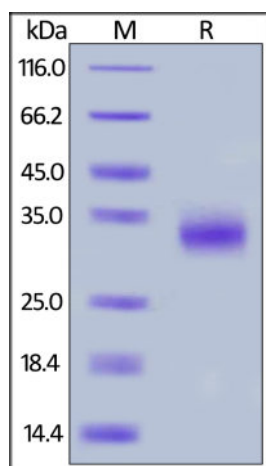
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

*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.

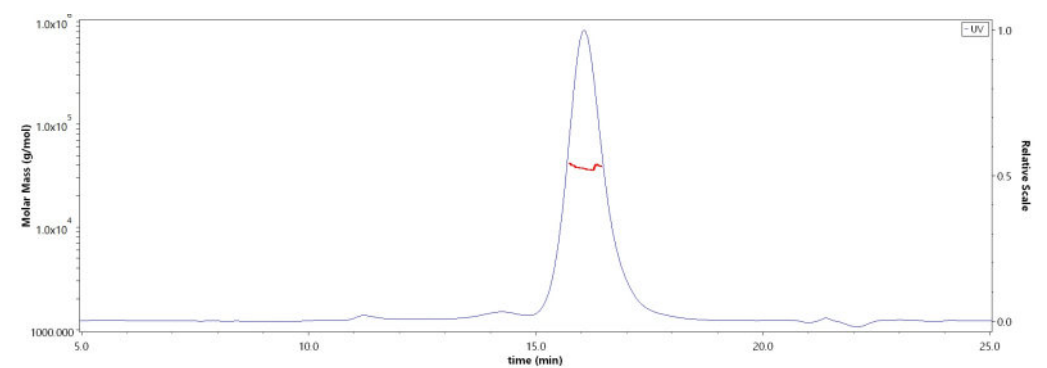
**SDS-PAGE**



Biotinylated Cynomolgus CD32b, His,Avitag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95%.

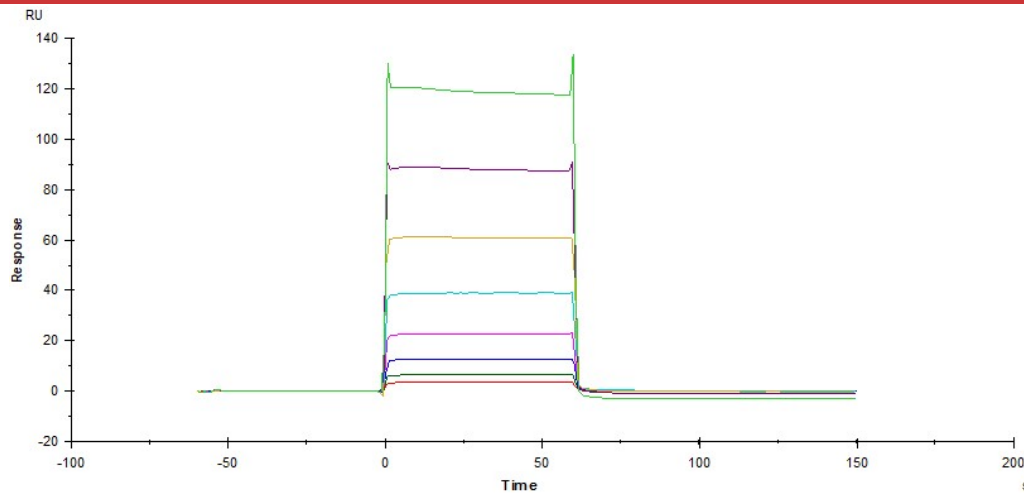
**Bioactivity-SPR**

**SEC-MALS**



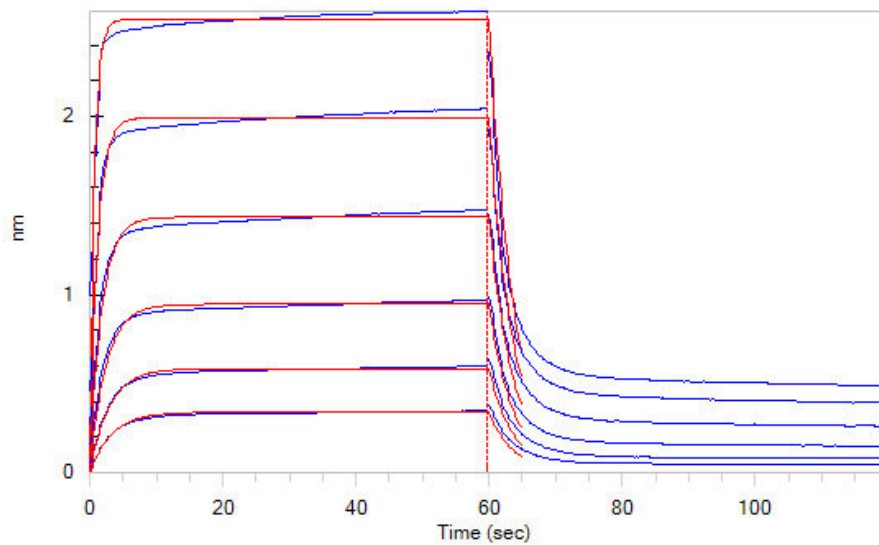
The purity of Biotinylated Cynomolgus CD32b, His,Avitag (Cat. No. CDB-C82E4) is more than 90% and the molecular weight of this protein is around 35-45 kDa verified by SEC-MALS.

[Report](#)



Captured Biotinylated Cynomolgus Fc gamma RIIB / CD32b, His Tag, Avi Tag Protein (Cat. No. CDB-C82E4) on Biotin CAP - Series S sensor Chip can bind Rituximab biosimilar (Cat. No. CD0-M36) with an affinity constant of 4.52  $\mu\text{M}$  as determined in a SPR assay (Biacore T200) (QC tested).

### Bioactivity-BLI



Loaded Biotinylated Cynomolgus CD32b, His,Avitag (Cat. No. CDB-C82E4) on SA Biosensor, can bind MabThera® (Rituximab) with an affinity constant of 1.3  $\mu\text{M}$  as determined in BLI assay (ForteBio Octet Red96e) (Routinely tested).

### Background

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

There are three genes for human Fc $\gamma$  RII /CD32 (A, B, and C) and one for mouse Fc $\gamma$  RII B (CD32B). CD32 is a low affinity receptor for IgG. Low affinity immunoglobulin gamma Fc region receptor II-b (FCGR2B) is also known as CD32b, FCG2, IGFR2. CD32B is expressed on B cells and myeloid dendritic cells. Ligation of CD32B on B cells downregulates antibody production and may, in some circumstances, promote apoptosis. Co-ligation of CD32B on dendritic cells inhibits maturation and blocks cell activation. CD32B may also be a target for monoclonal antibody therapy for malignancies.

### Clinical and Translational Updates

Please contact us via [TechSupport@acrobiosystems.com](mailto:TechSupport@acrobiosystems.com) if you have any question on this product.