Biotinylated Cynomolgus Fc gamma RIIB / CD32b Protein, His,Avitag™ (SPR & BLI & MALS verified)

Catalog # CDB-C82E4

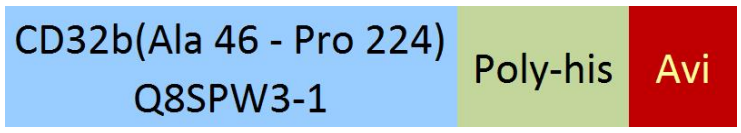
Synonym

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.

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

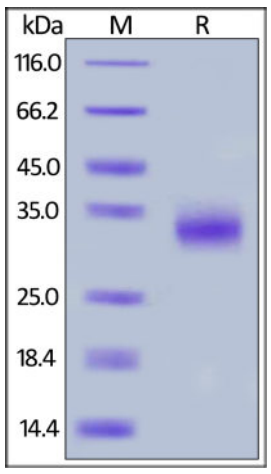
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

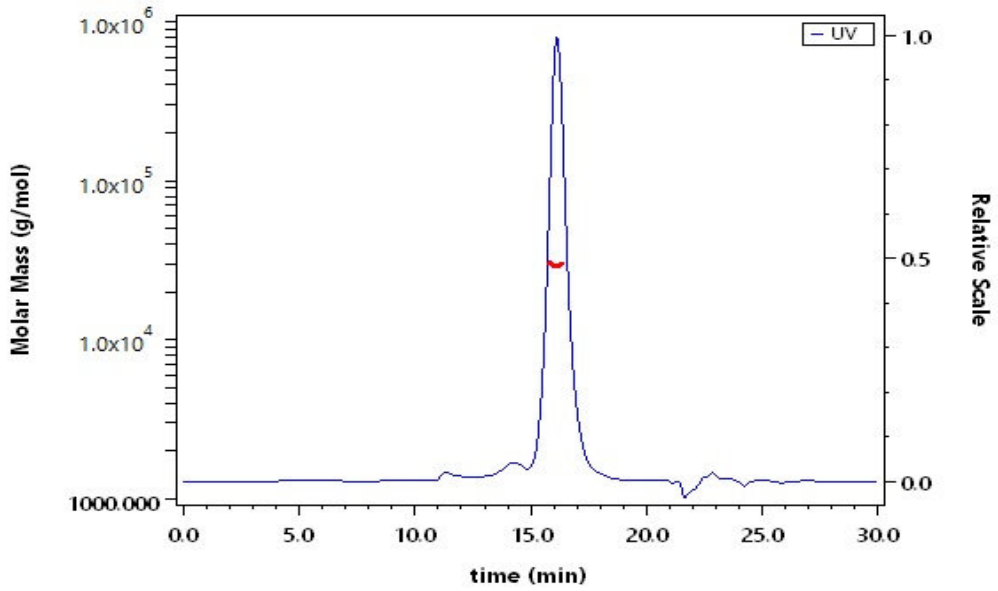
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 12 months under sterile conditions after reconstitution.

SDS-PAGE



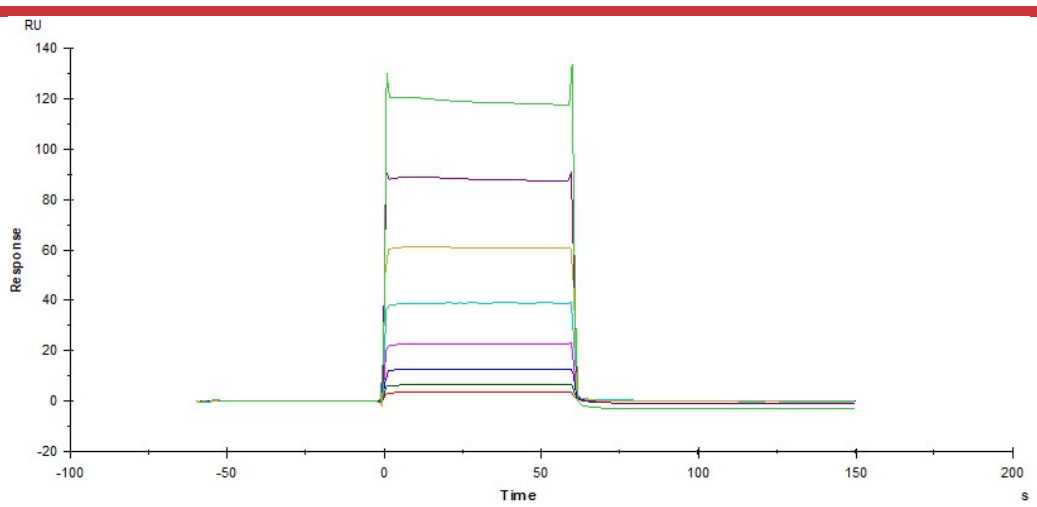
Biotinylated Cynomolgus CD32b, His,Avitag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95%.

SEC-MALS



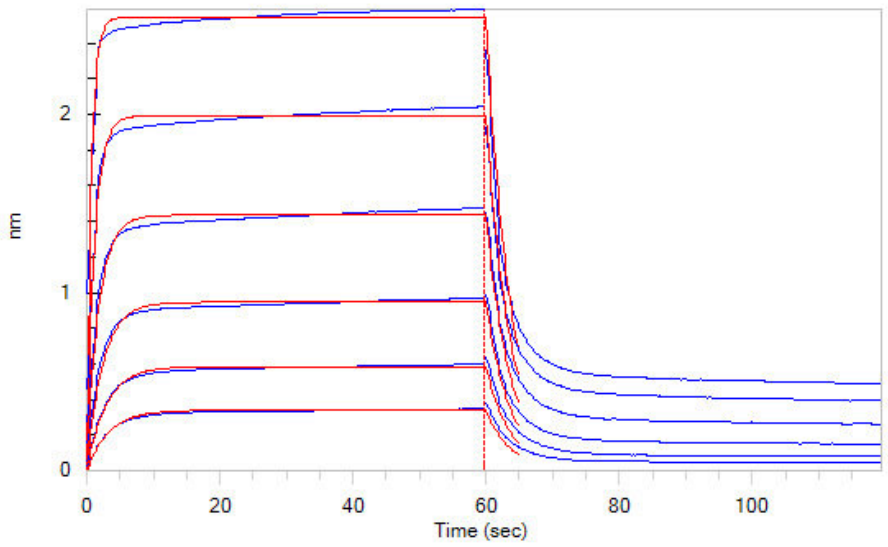
The purity of Biotinylated Cynomolgus CD32b, His,Avitag (Cat. No. CDB-C82E4) is more than 90% and the molecular weight of this protein is around 35-45 kDa verified by SEC-MALS.
Report

Bioactivity-SPR



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 μM 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 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 Fcγ RII /CD32 (A, B, and C) and one for mouse Fcγ 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.