



Synonym

FCGR2B,C,CD32b,c,FcRII-b,c,Fc-gamma RII-b,c,Fc-gamma-RIIb,c,CD32,FCG2,IGFR2,CDw32

Source

Biotinylated Human CD32b/c, Avitag,His Tag (CDB-H82E0) is expressed from human 293 cells (HEK293). It contains AA Ala 46 - Pro 217 (Accession # [P31994-1](#)). In the region Ala 46 - Pro 217, the AA sequence of Fc gamma RIIB and Fc gamma RIIC are homologous.

Predicted N-terminus: Ala 46

Molecular Characterization

CD32b/c(Ala 46 - Pro 217)
P31994-1 **Avi** Poly-his

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

The protein has a calculated MW of 23.0 kDa. The protein migrates as 33-38 kDa when calibrated against [Star Ribbon Pre-stained Protein Marker](#) 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

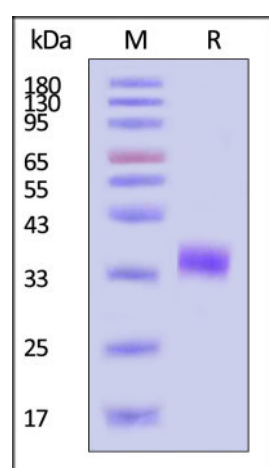
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

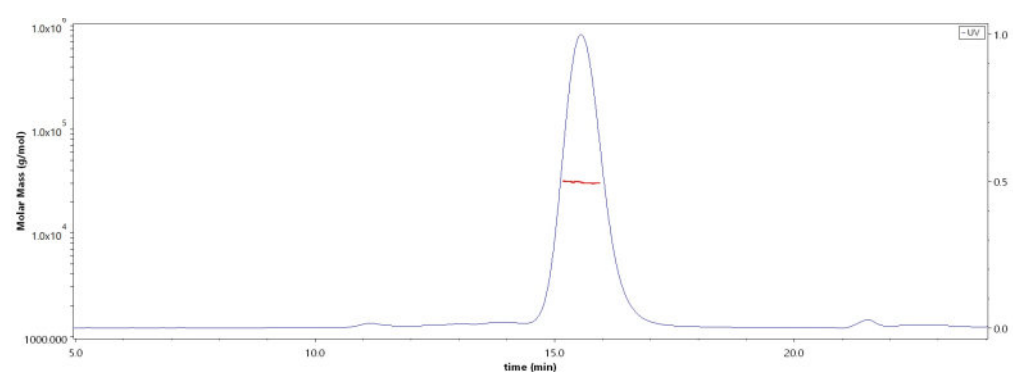
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 12 months under sterile conditions after reconstitution.

SDS-PAGE



Biotinylated Human CD32b/c, Avitag,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 Biotinylated Human CD32b/c, Avitag,His Tag (Cat. No. CDB-H82E0) is more than 90% and the molecular weight of this protein is around 24-36 kDa verified by SEC-MALS.

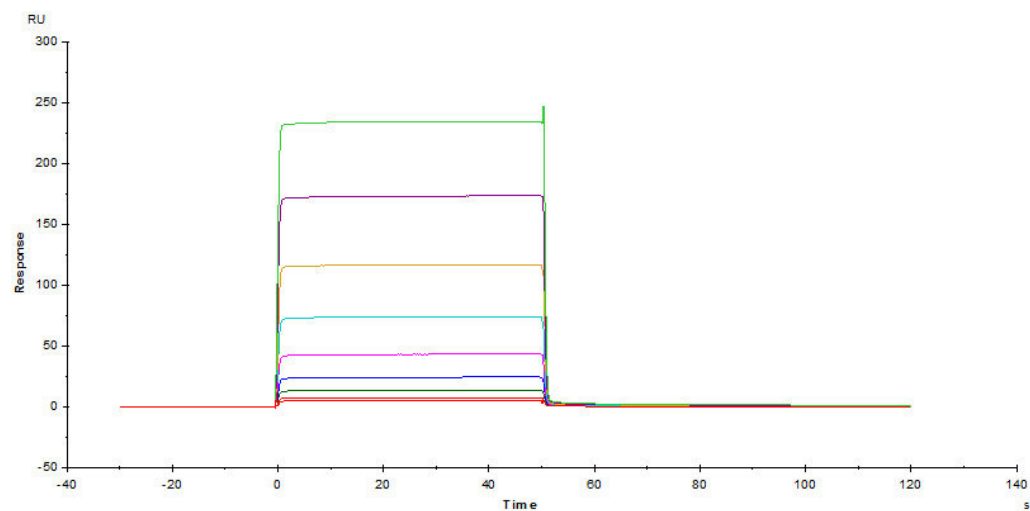
[Report](#)

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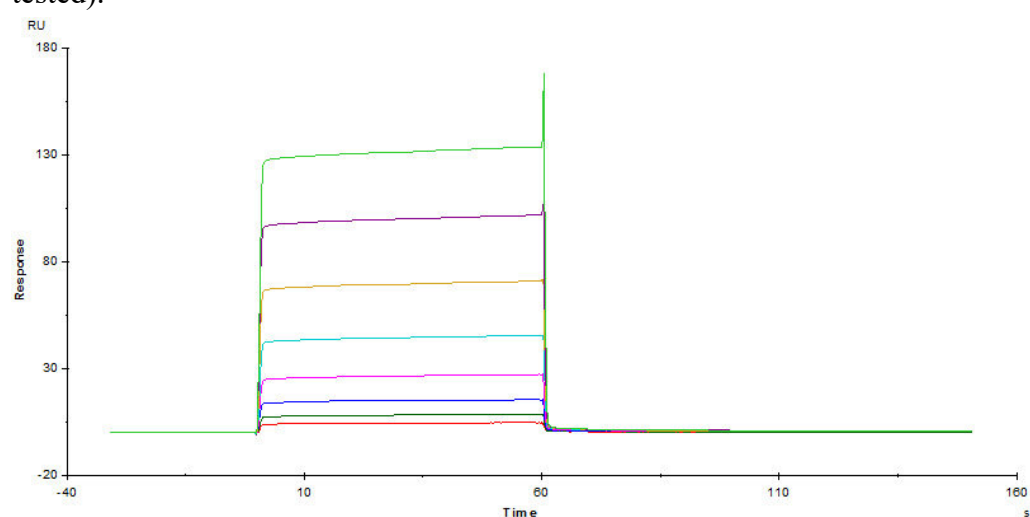




Bioactivity-SPR

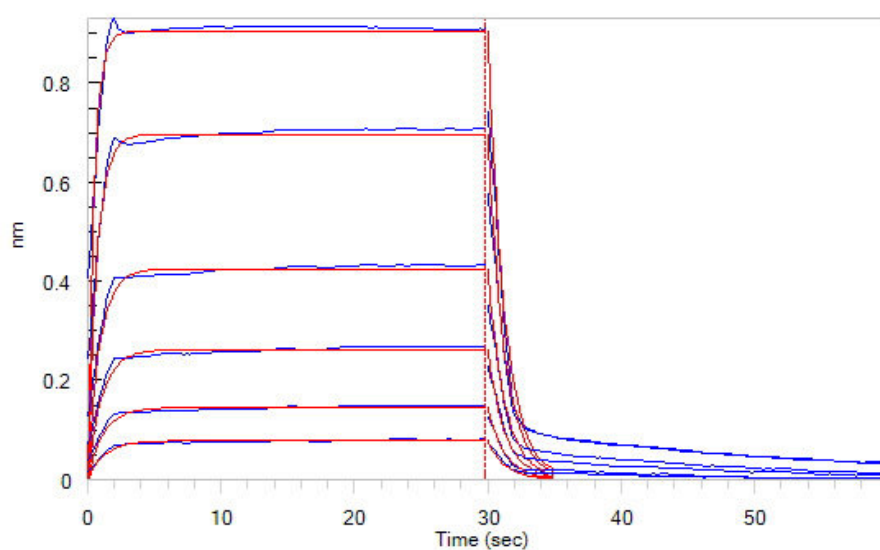


Biotinylated Human CD32b/c, Avitag,His Tag (Cat. No. CDB-H82E0) captured on Biotin CAP- Series S Sensor Chip can bind Rituximab with an affinity constant of 5 μ M as determined in a SPR assay (Biacore T200) (QC tested).



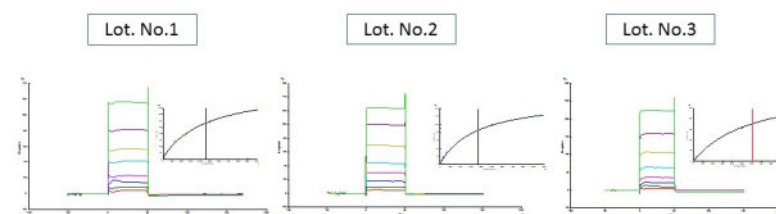
Immobilized Biotinylated Human CD32b/c, Avitag,His Tag (Cat. No. CDB-H82E0) on SA Chip, can bind Rituximab with an affinity constant of 4.22 μ M as determined in a SPR assay (Biacore T200) (Routinely tested).

Bioactivity-BLI



Loaded Biotinylated Human CD32b/c, Avitag,His Tag (Cat. No. CDB-H82E0) on SA Biosensor, can bind Rituximab with an affinity constant of 2.7 μ M as determined in BLI assay (ForteBio Octet Red96e) (Routinely tested).

Batch consistency



Ligand Name	Ligand Lot. No.	analyte	KD (M)
Human CD32b	Lot. No. 1	OKT-3	4.54E-06
	Lot. No. 2		3.64E-06
	Lot. No. 3		6.04E-06

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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. 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

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