

Synonym**Source**

Biotinylated Mouse CD32b, Avitag, His Tag (CDB-M82E8) is expressed from human 293 cells (HEK293). It contains AA Thr 40 - Arg 217 (Accession # [NP_001070657.1](#)).

Predicted N-terminus: Thr 40

Molecular Characterization

| | | |
|---|-----|----------|
| CD32b(Thr 40 - Arg 217) NP_001070657.1 | 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 24.0 kDa. The protein migrates as 38-45 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

Biotinylation

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

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. Normally trehalose is added as protectant before lyophilization.

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.

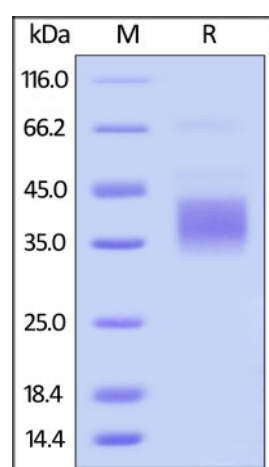
Storage

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

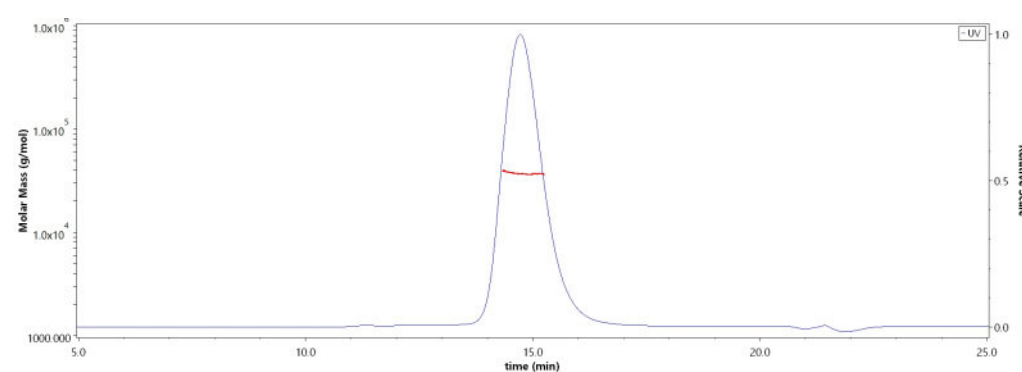
Please avoid repeated freeze-thaw cycles.

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.

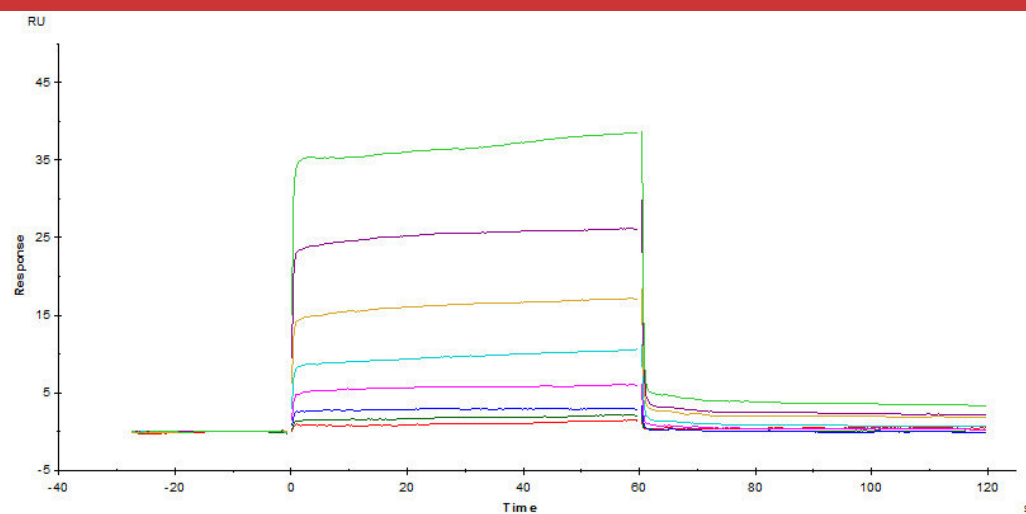
SDS-PAGE

Biotinylated Mouse CD32b, Avitag, His Tag 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**

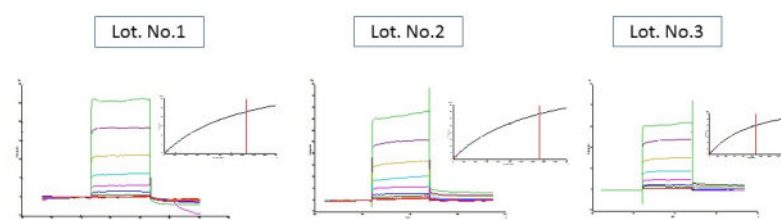
The purity of Biotinylated Mouse CD32b, Avitag, His Tag (Cat. No. CDB-M82E8) is more than 90% and the molecular weight of this protein is around 30-44 kDa verified by SEC-MALS.

[Report](#)



Biotinylated Mouse CD32b, Avitag, His Tag (Cat. No. CDB-M82E8) captured on Biotin CAP- Series S Sensor Chip can bind OKT3 with an affinity constant of 1.53 μ M as determined in a SPR assay (Biacore T200) (QC tested).

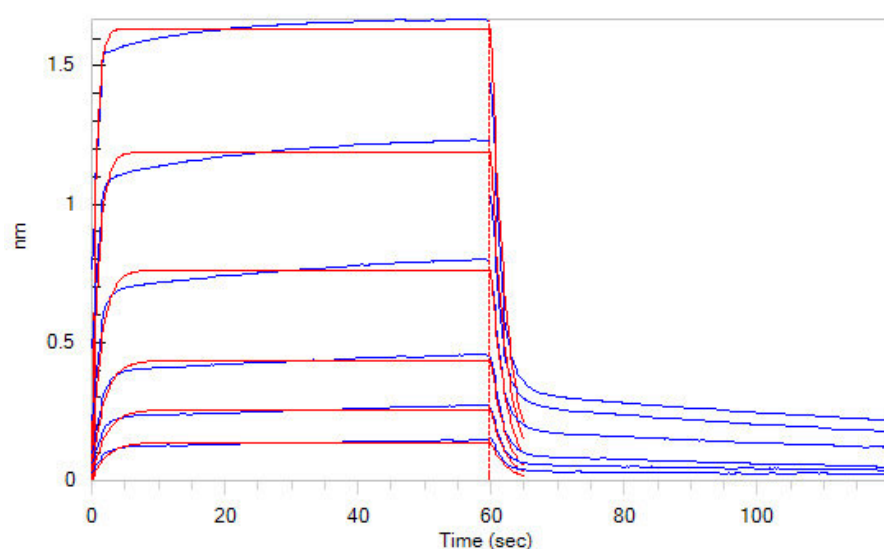
Batch consistency



| Ligand Name | Ligand Lot. No. | analyte | KD (M) |
|-------------|-----------------|---------|----------|
| Mouse CD32b | Lot. No. 1 | OKT-3 | 1.47E-06 |
| | Lot. No. 2 | | 1.53E-06 |
| | Lot. No. 3 | | 1.09E-06 |

[Report](#)

Bioactivity-BLI



Loaded Biotinylated Mouse CD32b, Avitag, His Tag (Cat. No. CDB-M82E8) on SA Biosensor, can bind MabThera® (Rituximab) with an affinity constant of 2.5 μ M 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. 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 if you have any question on this product.