



### Synonym

FCGR

### Source

Mouse CD32b, His Tag(CDB-M52H7) 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 Poly-his

This protein carries a polyhistidine tag at the C-terminus.

The protein has a calculated MW of 22.2 kDa. The protein migrates as 32-42 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

### 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

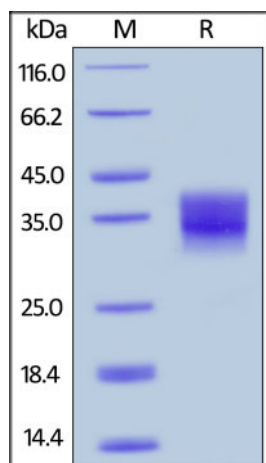
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

*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 3 months under sterile conditions after reconstitution.

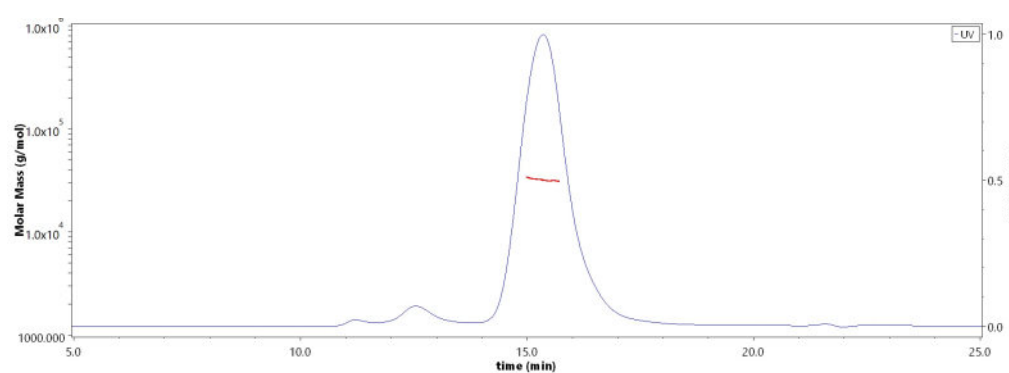
### SDS-PAGE



Mouse CD32b, 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%.

### Bioactivity-SPR

### SEC-MALS

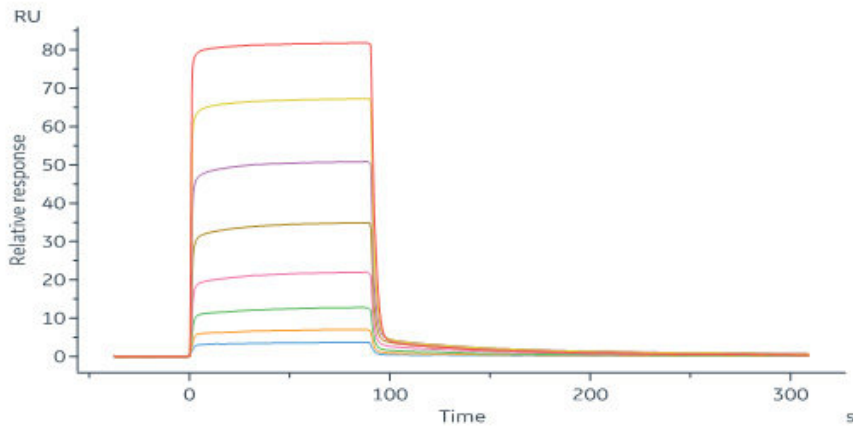


The purity of Mouse CD32b, His Tag (Cat. No. CDB-M52H7) is more than 90% and the molecular weight of this protein is around 30-45 kDa verified by SEC-MALS.

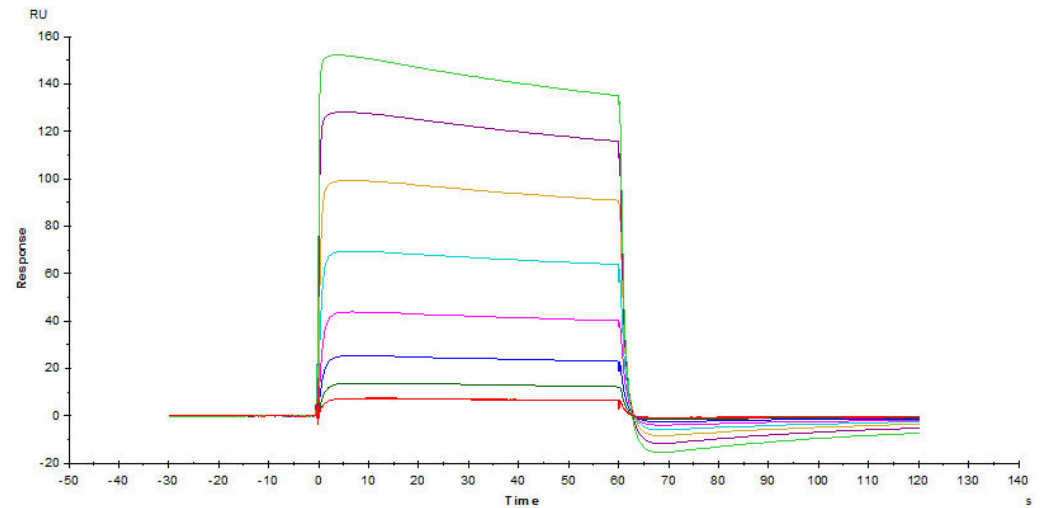
[Report](#)

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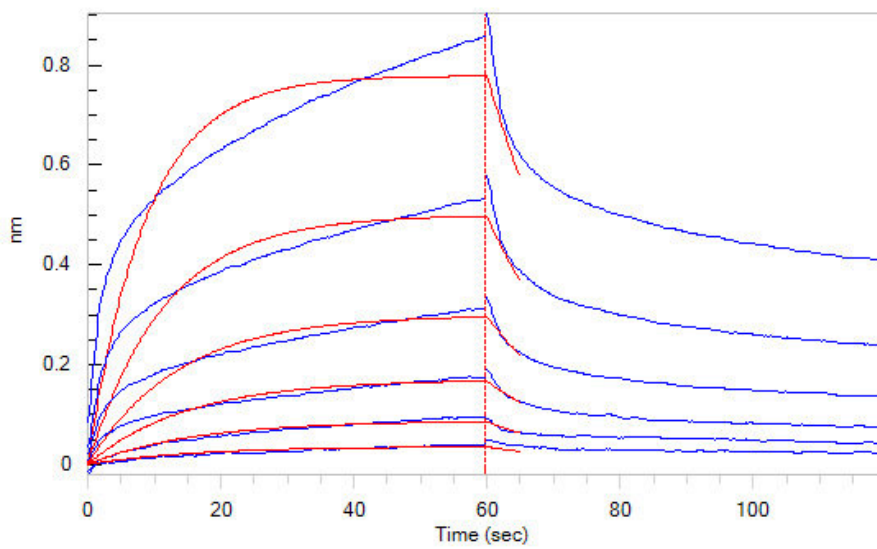


OKT3 immobilized on CM5 Chip can bind Mouse CD32b, His Tag (Cat. No. CDB-M52H7) with an affinity constant of 498 nM as determined in a SPR assay (Biacore 8K) (QC tested).

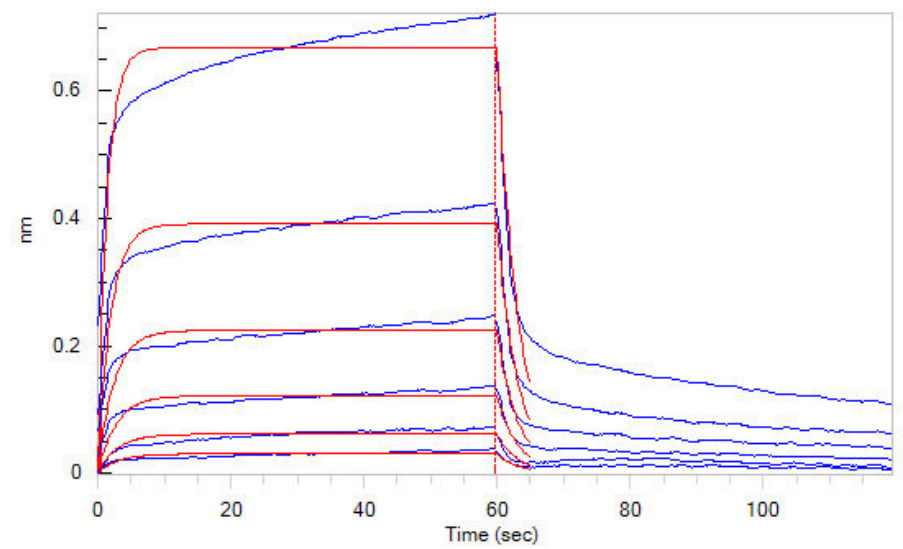


Immobilized OKT3 on Protein G-Series S sensor chip, can bind Mouse CD32b, His Tag (Cat. No. CDB-M52H7) with an affinity constant of 0.55  $\mu$ M as determined in a SPR assay (Biacore T200) (Routinely tested).

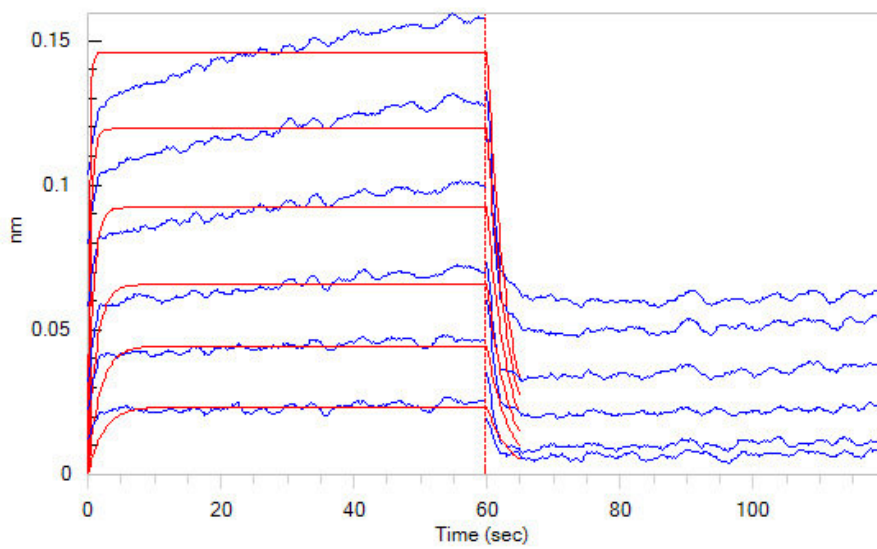
**Bioactivity-BLI**



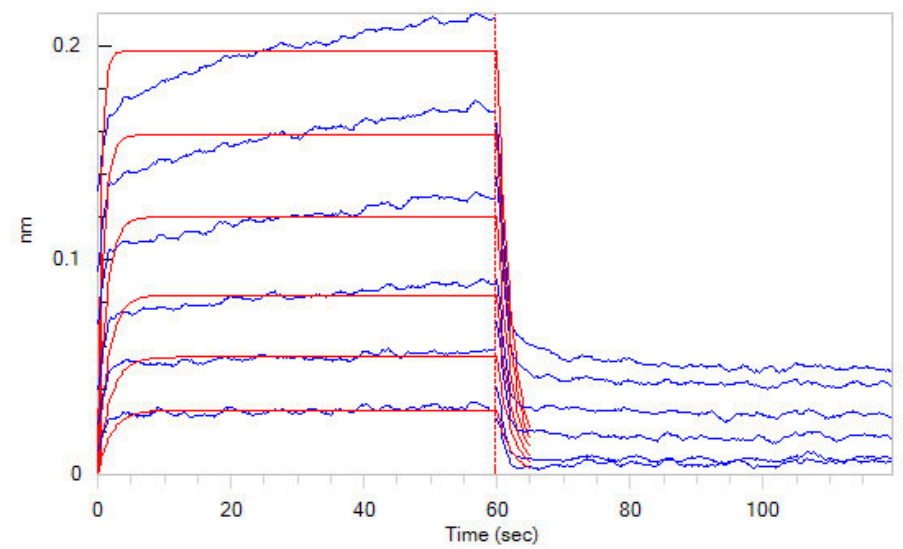
Loaded Mouse CD32b, His Tag (Cat. No. CDB-M52H7) on NTA Biosensor, can bind OKT3 with an affinity constant of 1.2  $\mu$ M as determined in BLI assay (ForteBio Octet Red96e) (Routinely tested).



Loaded Mouse CD32b, His Tag (Cat. No. CDB-M52H7) on NTA Biosensor, can bind Herceptin with an affinity constant of 2.1  $\mu$ M as determined in BLI assay (ForteBio Octet Red96e) (Routinely tested).



Loaded OKT3 on Protein G Biosensor, can bind Mouse CD32b, His Tag (Cat. No. CDB-M52H7) with an affinity constant of 1  $\mu$ M as determined in BLI assay (ForteBio Octet Red96e) (Routinely tested).



Loaded Herceptin on Protein G Biosensor, can bind Mouse CD32b, His Tag (Cat. No. CDB-M52H7) with an affinity constant of 1.2  $\mu$ M as determined in BLI assay (ForteBio Octet Red96e) (Routinely tested).

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## 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

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