Mouse Fc gamma RIIB / CD32b Protein, His Tag (SPR & BLI & MALS verified)

Catalog # CDB-M52H7

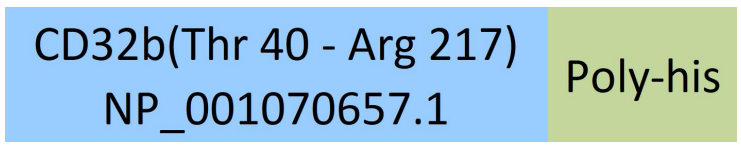
Synonym

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



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 / rFC 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

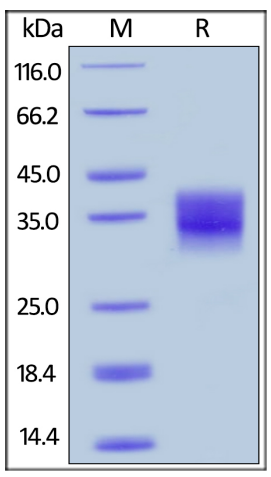
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

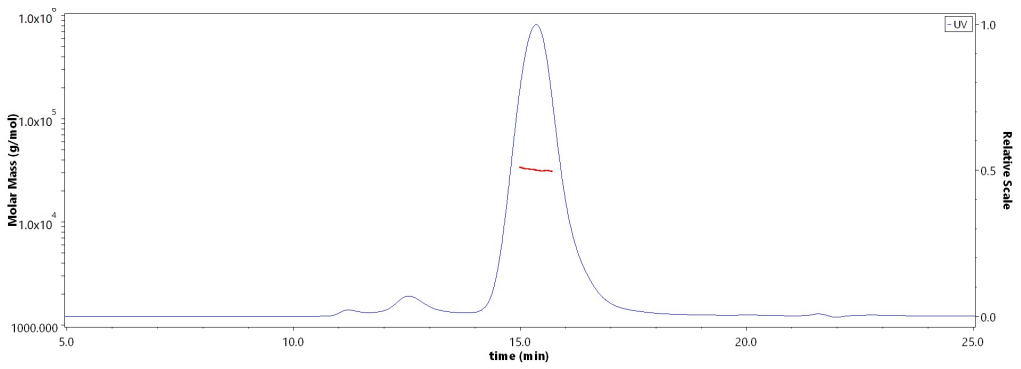
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE



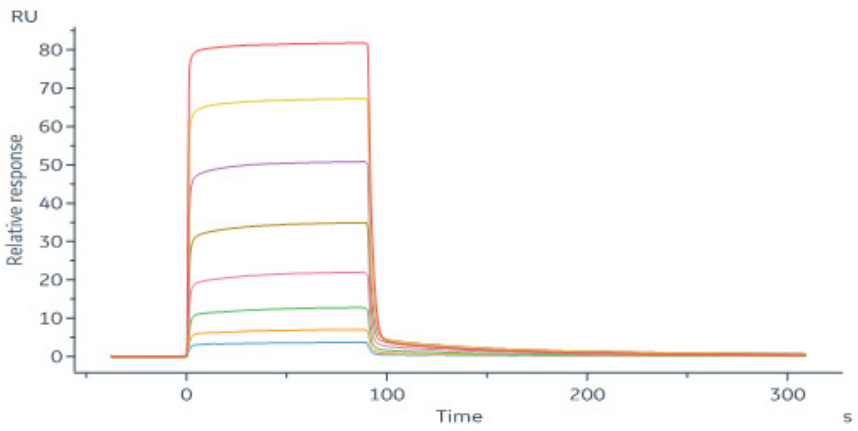
Mouse CD32b, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95%.

SEC-MALS

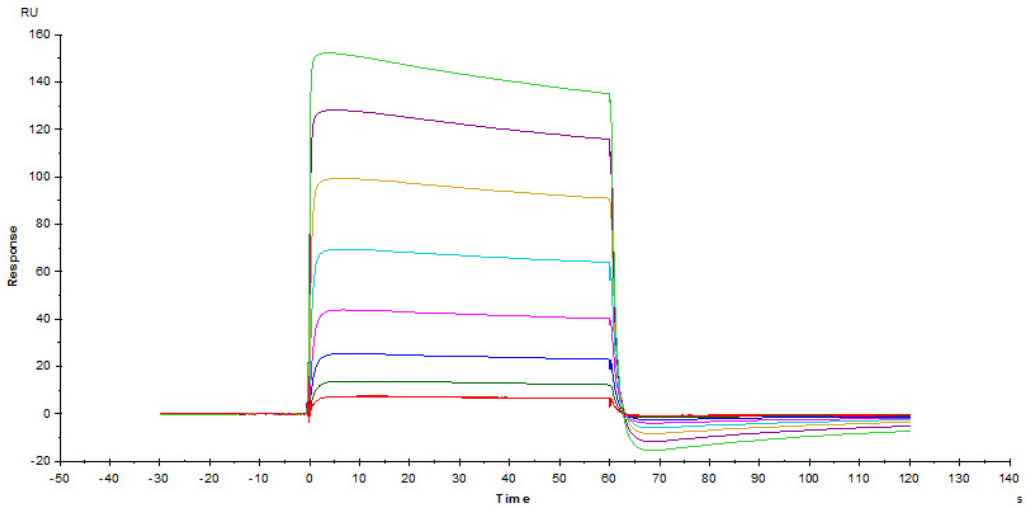


The purity of Mouse CD32b, His Tag (Cat. No. CDB-M52H7) is more than 90% and the molecular weight of this protein is around 30-45 kDa verified by SEC-MALS.
Report

Bioactivity-SPR

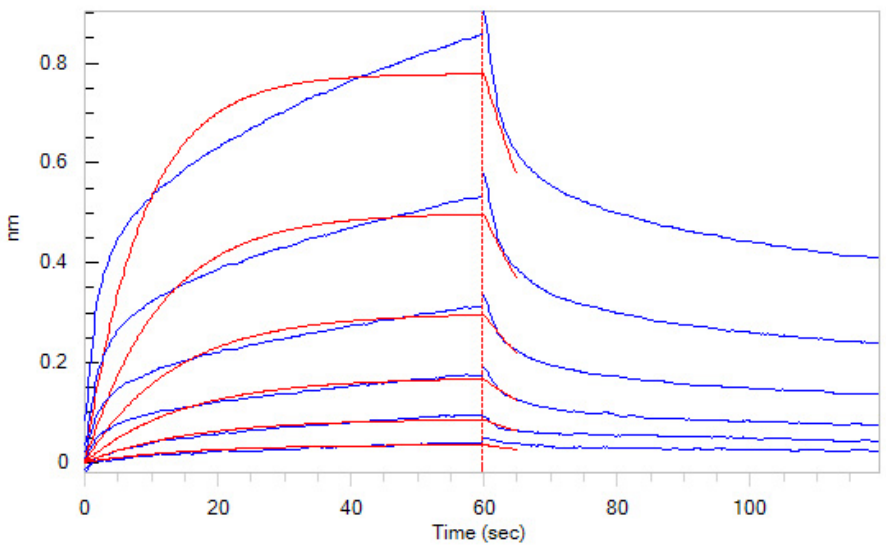


OKT3 immobilized on CM5 Chip can bind Mouse CD32b, His Tag (Cat. No. CDB-M52H7) with an affinity constant of 498 nM as determined in a SPR assay (Biacore 8K) (QC tested).

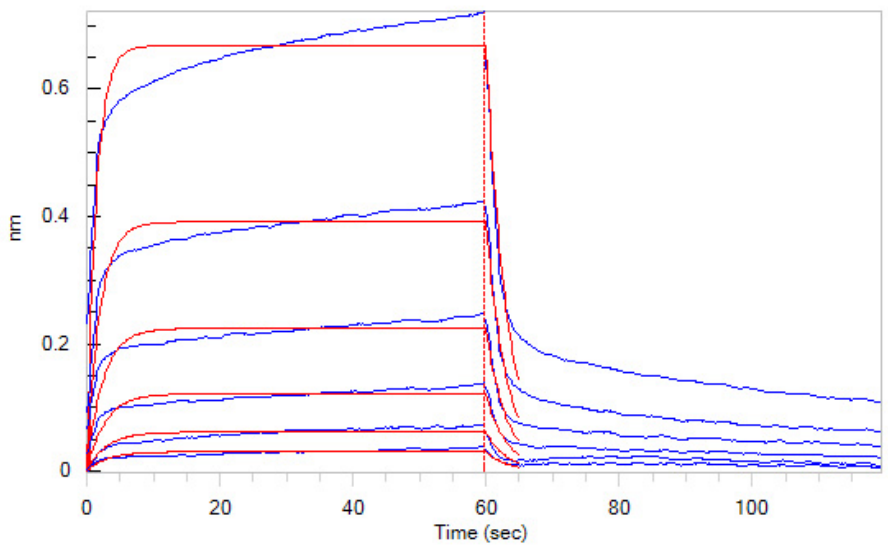


Immobilized OKT3 on Protein G-Series S sensor chip, can bind Mouse CD32b, His Tag (Cat. No. CDB-M52H7) with an affinity constant of 0.55 μM as determined in a SPR assay (Biacore T200) (Routinely tested).

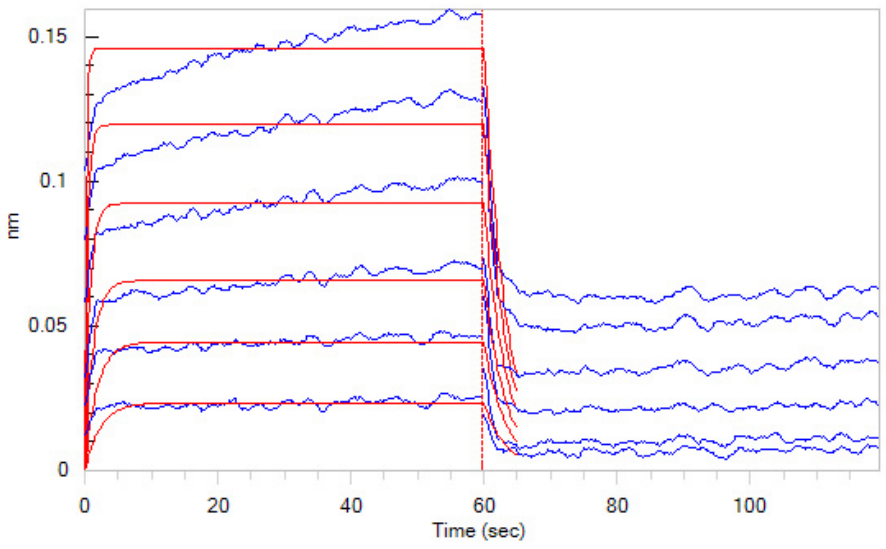
Bioactivity-BLI



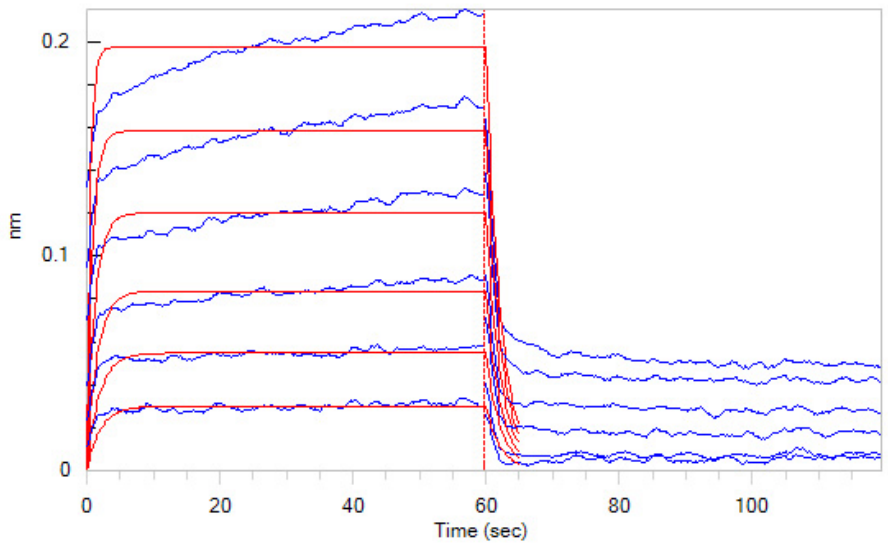
Loaded Mouse CD32b, His Tag (Cat. No. CDB-M52H7) on NTA Biosensor, can bind OKT3 with an affinity constant of 1.2 μM as determined in BLI assay (ForteBio Octet Red96e) (Routinely tested).



Loaded Mouse CD32b, His Tag (Cat. No. CDB-M52H7) on NTA Biosensor, can bind Herceptin with an affinity constant of 2.1 μM 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 μM 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 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.