

Synonym

FCGR1A,FCG1,FCGR1,IGFR1,CD64,CD64A,FCRI

Source

Mouse CD64, His Tag(CD4-M5227) is expressed from human 293 cells (HEK293). It contains AA Glu 25 - Pro 297 (Accession # [P26151-1](#)).

Predicted N-terminus: Glu 25

Molecular Characterization

CD64(Glu 25 - Pro 297)
P26151-1

Poly-his

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

The protein has a calculated MW of 32.3 kDa. The protein migrates as 40-55 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

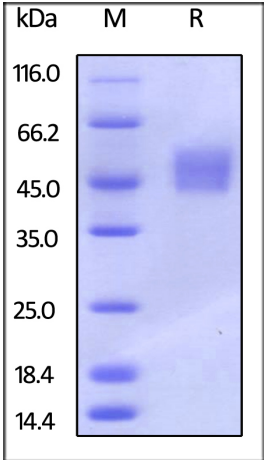
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

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.

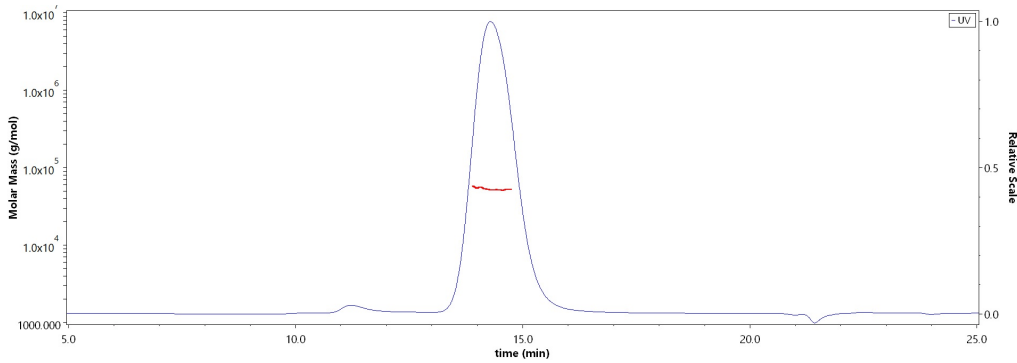
SDS-PAGE



Mouse CD64, 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-ELISA

SEC-MALS



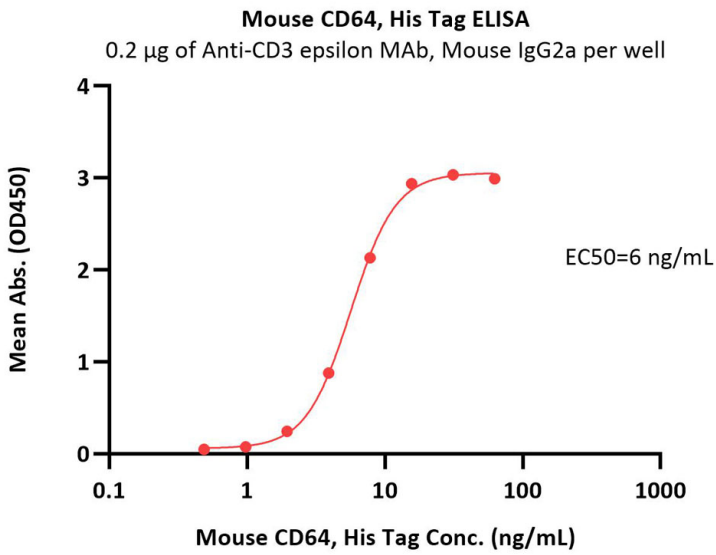
The purity of Mouse CD64, His Tag (Cat. No. CD4-M5227) is more than 90% and the molecular weight of this protein is around 45-60 kDa verified by SEC-MALS.

[Report](#)

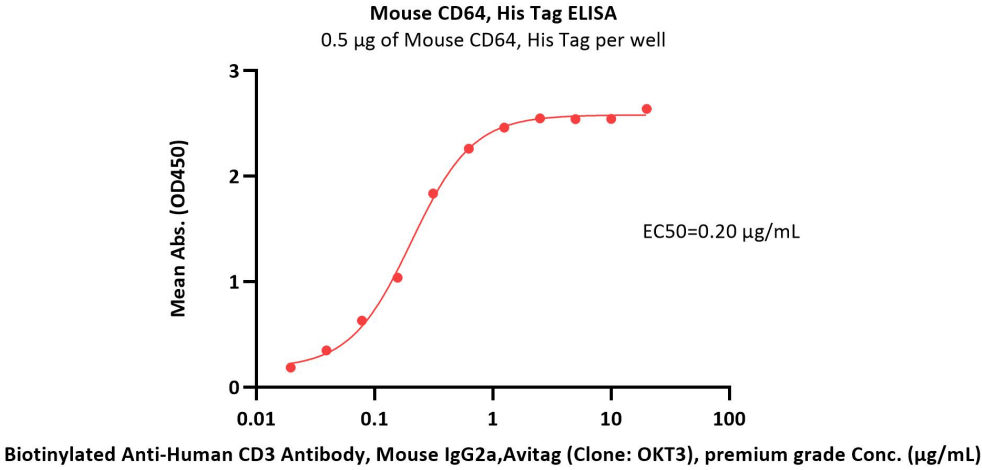


Mouse Fc gamma RI / CD64 Protein, His Tag (MALS & BLI verified)

Catalog # CD4-M5227

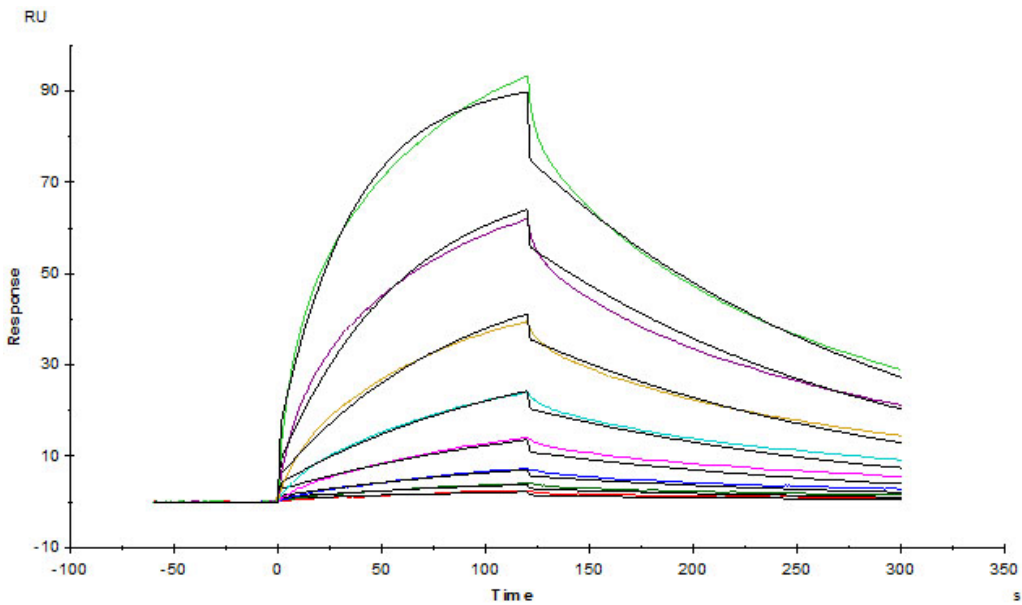


Immobilized Monoclonal Anti-Human CD3 Antibody, Mouse IgG2a (Clone: OKT3), premium grade (Cat. No. CDE-M120a) at 2 µg/mL (100 µL/well) can bind Mouse CD64, His Tag (Cat. No. CD4-M5227) with a linear range of 1-8 ng/mL (QC tested).



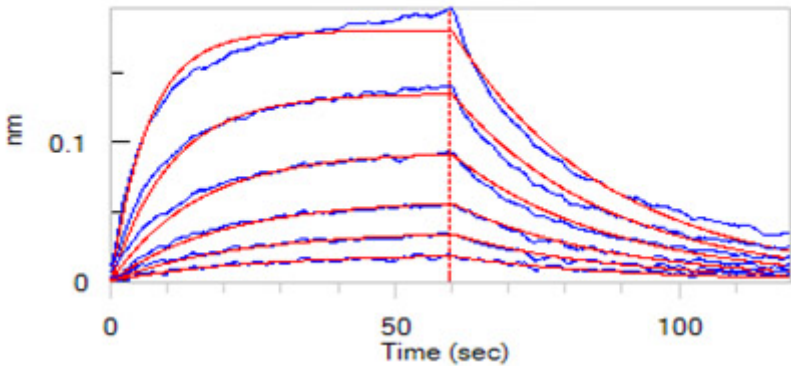
Immobilized Mouse CD64, His Tag (Cat. No. CD4-M5227) at 5 µg/mL (100 µL/well) can bind Biotinylated Anti-Human CD3 Antibody, Mouse IgG2a, Avitag (Clone: OKT3), premium grade (Cat. No. CDE-BV84G0) with a linear range of 0.02-0.625 µg/mL (Routinely tested).

Bioactivity-SPR



Captured Mouse CD64, His Tag (Cat. No. CD4-M5227) on NTA-Series S sensor chip can bind Herceptin® (Trastuzumab) with an affinity constant of 63.8 nM as determined in a SPR assay (Biacore T200) (Routinely tested).

Bioactivity-BLI



Loaded Herceptin on Protein A Biosensor, can bind Mouse CD64, His Tag (Cat. No. CD4-M5227) with an affinity constant of 31 nM as determined in BLI assay (ForteBio Octet Red96e) (Routinely tested).





Background

Receptors that recognize the Fc portion of IgG are divided into three groups designated Fc gamma RI, RII, and RIII, also known respectively as CD64, CD32, and CD16. Fc gamma RI binds IgG with high affinity and functions during early immune responses. Fc gamma RII and RIII are low affinity receptors that recognize IgG as aggregates surrounding multivalent antigens during late immune responses.

High affinity immunoglobulin gamma Fc receptor I is also known as FCGR1A, FCG1, FCGR1, CD64 and IGFR1, is a type of integral membrane glycoprotein that binds monomeric IgG-type antibodies with high affinity, which belongs to the immunoglobulin superfamily or FCGR1 family. FCGR1A / CD64 contains 3 Ig-like C2-type (immunoglobulin-like) domains. CD64 is constitutively found on only macrophages and monocytes, but treatment of polymorphonuclear leukocytes with cytokines like IFN γ and G-CSF can induce CD64 expression on these cells.

