



**Synonym**

FCGR3

**Source**

Mouse CD16, His Tag(CDA-M52H8) is expressed from human 293 cells (HEK293). It contains AA Leu 32 - Thr 215 (Accession # [Q5D5I8](#)).

Predicted N-terminus: Leu 32

**Molecular Characterization**

CD16(Leu 32 - Thr 215)  
Q5D5I8 Poly-his

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

The protein has a calculated MW of 23.0 kDa. The protein migrates as 36-45 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**

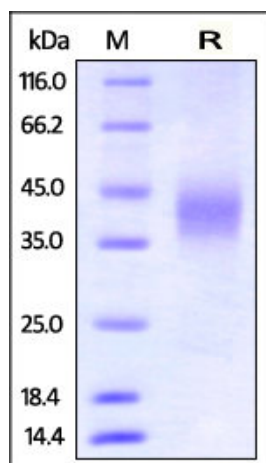
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

*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.

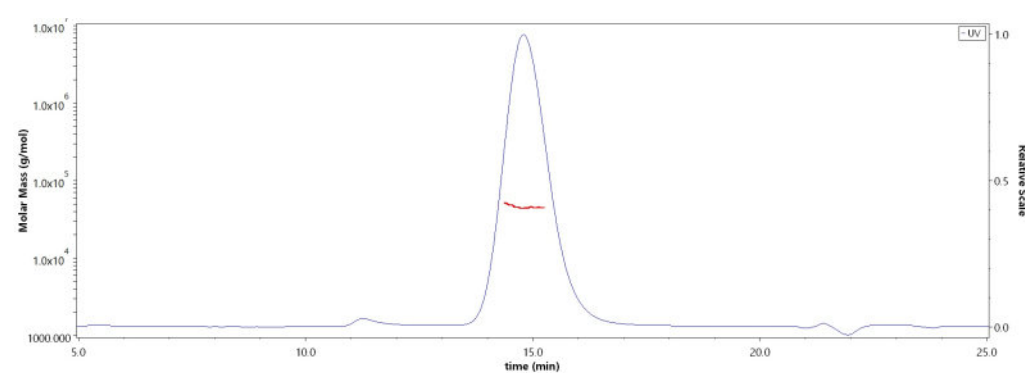
**SDS-PAGE**



Mouse CD16, 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**

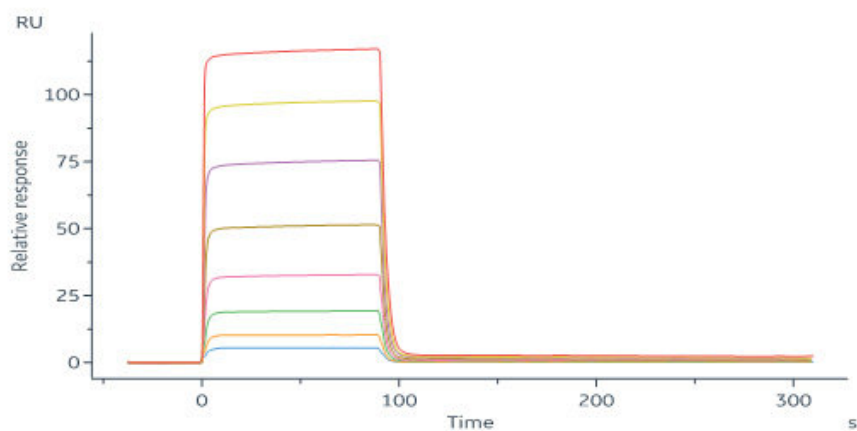


The purity of Mouse CD16, His Tag (Cat. No. CDA-M52H8) is more than 90% and the molecular weight of this protein is around 28-43 kDa verified by SEC-MALS.

[Report](#)

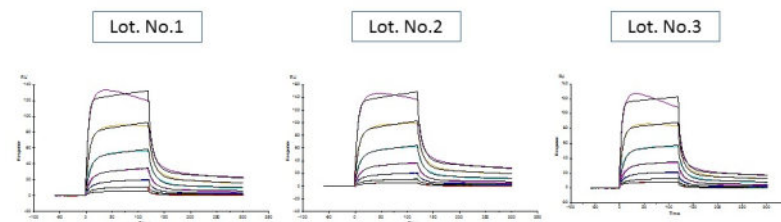
Discounts, Gifts,  
and more!





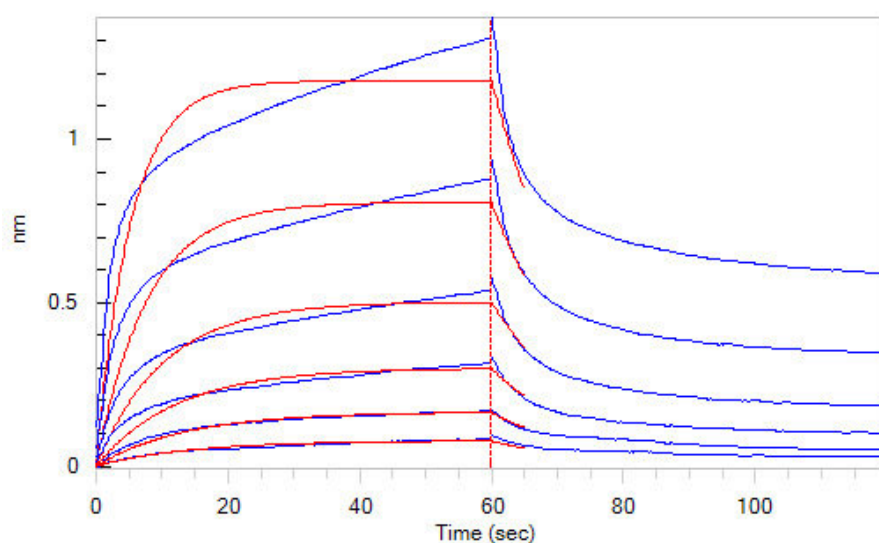
OKT3 immobilized on CM5 Chip can bind Mouse CD16, His Tag (Cat. No. CDA-M52H8) with an affinity constant of 450 nM as determined in a SPR assay (Biacore 8K) (QC tested).

**Batch consistency**

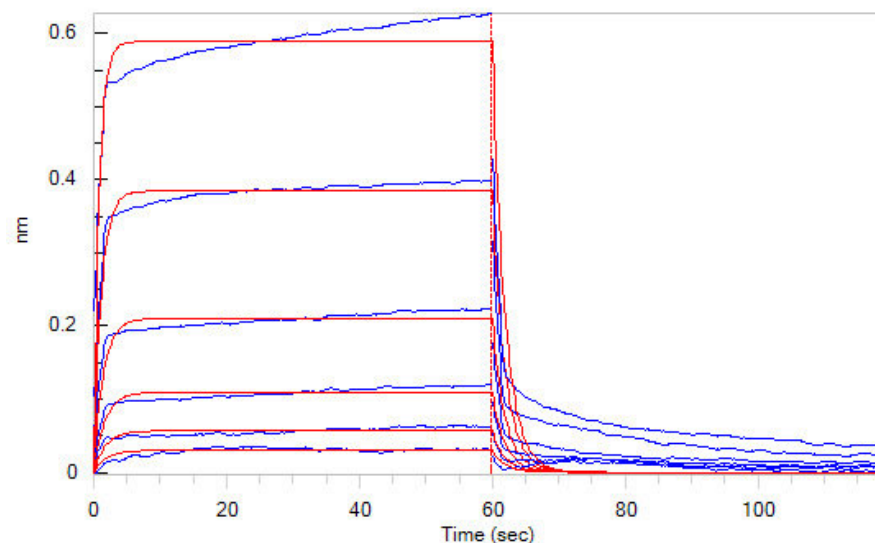


Ligand Name	Ligand Lot. No.	analyte	ka1 (1/Ms)	kd1 (1/s)	ka2 (1/s)	kd2 (1/s)	KD (M)
Mouse CD16	Lot. No. 1	OKT-3	7.64E+05	2.60E-01	3.01E-03	1.76E-03	1.26E-07
	Lot. No. 2		5.37E+05	2.15E-01	3.46E-03	1.96E-03	1.45E-07
	Lot. No. 3		1.19E+06	3.21E-01	2.55E-03	1.71E-03	1.09E-07

**Bioactivity-BLI**



Loaded Mouse CD16, His Tag (Cat. No. CDA-M52H8) on NTA Biosensor, can bind OKT3 with an affinity constant of 0.78  $\mu$ M as determined in BLI assay (ForteBio Octet Red96e) (Routinely tested).



Loaded Mouse CD16, His Tag (Cat. No. CDA-M52H8) on NTA Biosensor, can bind Herceptin with an affinity constant of 2.8  $\mu$ M as determined in BLI assay (ForteBio Octet Red96e) (Routinely tested).

**Background**

CD16 is a low affinity Fc receptor, and has been identified as Fc receptors Fc $\gamma$ RIIIa (CD16a) and Fc $\gamma$ RIIIb (CD16b). These receptors bind to the Fc portion of IgG antibodies. CD16 encoded by two different highly homologous genes in a cell type-specific manner. CD16 is found on the surface of natural killer cells, neutrophil polymorphonuclear leukocytes, monocytes and macrophages.

CD16a antigen is also known as Low affinity immunoglobulin gamma Fc region receptor III-A, Fc-gamma RIII-alpha. CD16b is a low-affinity, GPI-linked receptor expressed by neutrophils and eosinophils, whereas CD16a is an intermediate affinity polypeptide-anchored transmembrane glycoprotein expressed natural killer cells, macrophages, subpopulation of T-cells, immature thymocytes and placental trophoblasts. CD16a is involved in phagocytosis, secretion of enzymes and inflammatory mediators, antibody-dependent cytotoxicity and clearance of immune complexes. Aberrant expression or mutations of CD16a is implicated in susceptibility to recurrent viral infections, systemic lupus erythematosus, and alloimmune neonatal neutropenia.

**Clinical and Translational Updates**

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