

**Synonym**

CD32a,FCGR2A,CD32,FCG2 ,FCGR2A1,IGFR2

**Source**

Cynomolgus CD32a, His Tag (CDA-C52H7) is expressed from human 293 cells (HEK293). It contains AA Gln 28 - Pro 208 (Accession # [Q8SPW4-1](#)).

Predicted N-terminus: Gln 28

**Molecular Characterization**

CD32a(Gln 28 - Pro 208) Q8SPW4-1	Poly-his
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This protein carries a polyhistidine tag at the C-terminus.

The protein has a calculated MW of 22.1 kDa. The protein migrates as 27-35 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

**Endotoxin**

Less than 1.0 EU per µg by the LAL method.

**Purity**

>90% 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.*

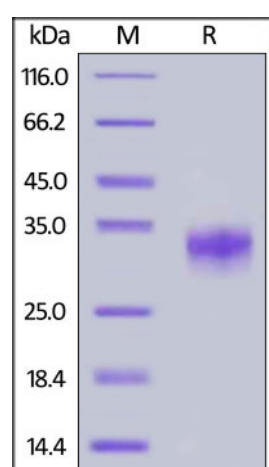
**Storage**

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

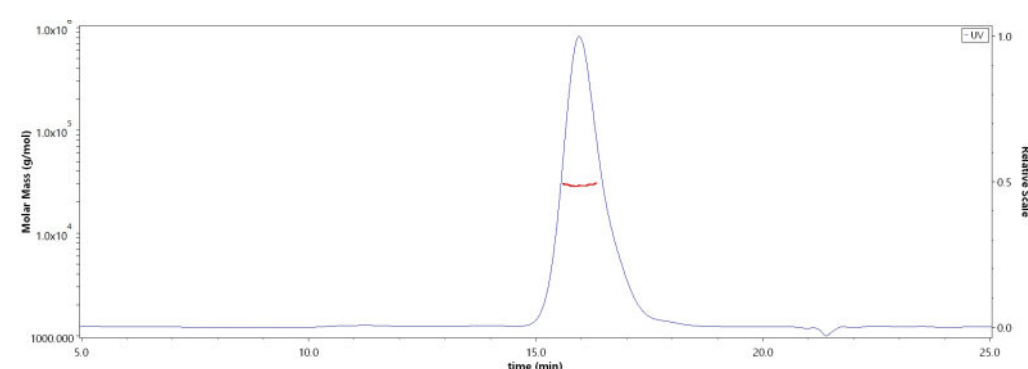
*Please avoid repeated freeze-thaw cycles.*

This product is stable after storage at:

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

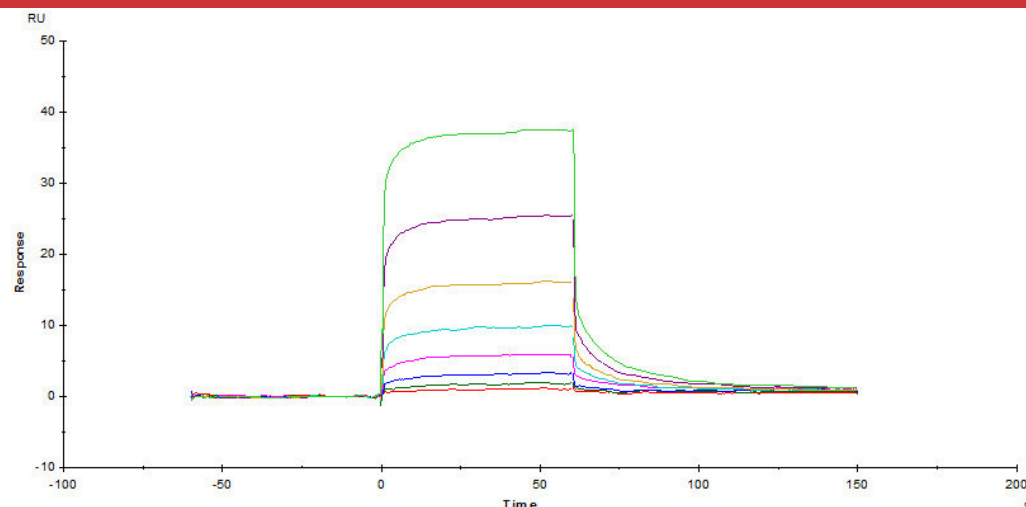
**SDS-PAGE**

Cynomolgus CD32a, 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 90%.

**Bioactivity-SPR****SEC-MALS**

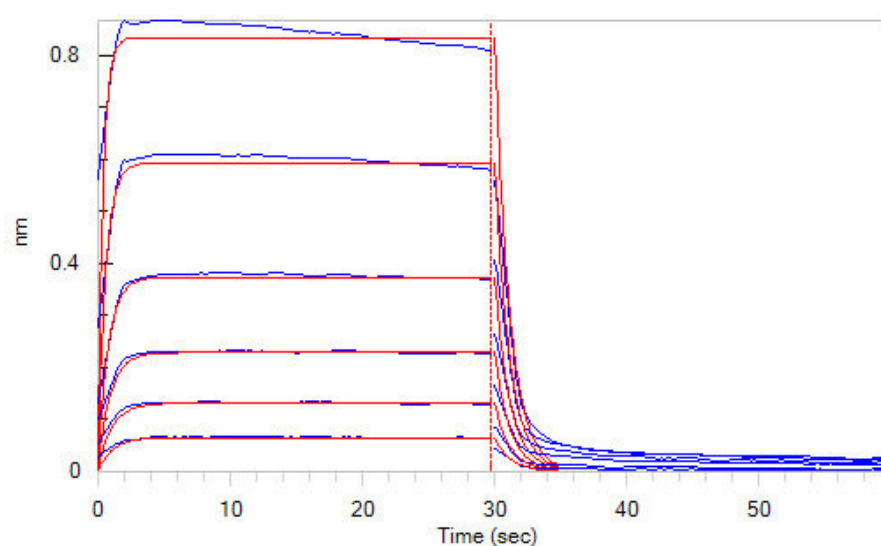
The purity of Cynomolgus CD32a, His Tag (Cat. No. CDA-C52H7) is more than 90% and the molecular weight of this protein is around 25-45 kDa verified by SEC-MALS.

[Report](#)

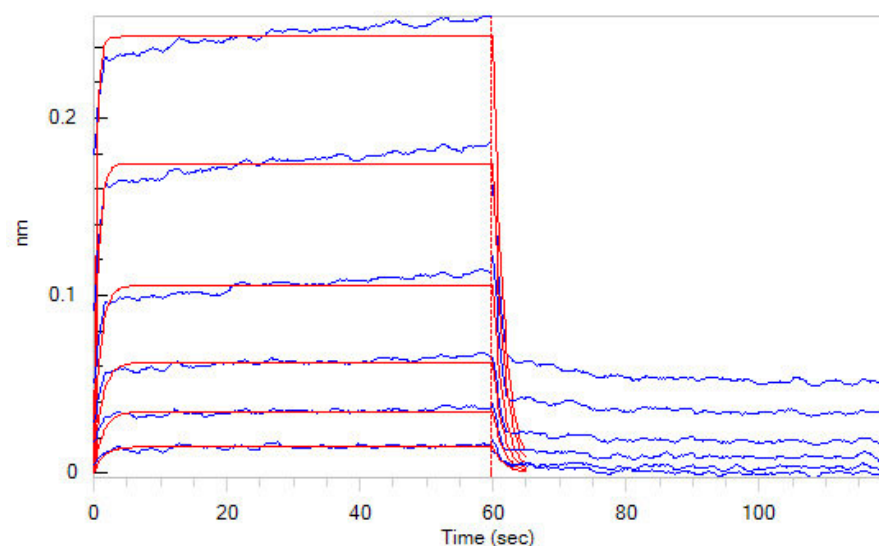


Captured Cynomolgus CD32a, His Tag (Cat. No. CDA-C52H7) on CM5 Chip via Anti-His antibody can bind Rituximab with an affinity constant of  $4.18 \mu\text{M}$  as determined in SPR assay (Biacore T200) (QC tested).

### Bioactivity-BLI



Loaded Cynomolgus CD32a, His Tag (Cat. No. CDA-C52H7) on HIS1K Biosensor, can bind Rituximab with an affinity constant of  $3.3 \mu\text{M}$  as determined in BLI assay (ForteBio Octet Red96e) (Routinely tested).



Loaded Rituximab on FAB2G Biosensor, can bind Cynomolgus CD32a, His Tag (Cat. No. CDA-C52H7) with an affinity constant of  $6.0 \mu\text{M}$  as determined in BLI assay (ForteBio Octet Red96e) (Routinely tested).

### 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. The activating isoform, CD32A, is expressed on monocytes, neutrophils, platelets and dendritic cells. CD32A is expressed on many immune cell types (macrophage, neutrophil, eosinophils, platelets, dendritic cells and Langerhan cells), where inhibitory ITIMbearing receptors may also be coexpressed and coengaged by specific ligands. CD32A delivers an activating signal upon ligand binding, and results in the initiation of inflammatory responses including cytolysis, phagocytosis, degranulation and cytokine production. The responses can be modulated by signals from the coexpressed inhibitory receptors such as CD32B, and the strength of the signal is dependent on the ratio of expression of the activating and inhibitory receptors.

### Clinical and Translational Updates

Please contact us via [TechSupport@acrobiosystems.com](mailto:TechSupport@acrobiosystems.com) if you have any question on this product.