

Synonym

CD32a,FCGR2A,CD32,FCG2 ,FCGR2A1,IGFR2

Source

Human CD32a (H167), His Tag (CD1-H5223) is expressed from human 293 cells (HEK293). It contains AA Ala 36 - Ile 218 (Accession # [P12318-1](#)).

Predicted N-terminus: Ala 36

Molecular Characterization

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

The protein has a calculated MW of 21.5 kDa. The protein migrates as 29-32 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. 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.

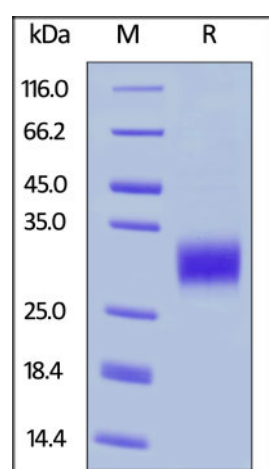
Storage

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

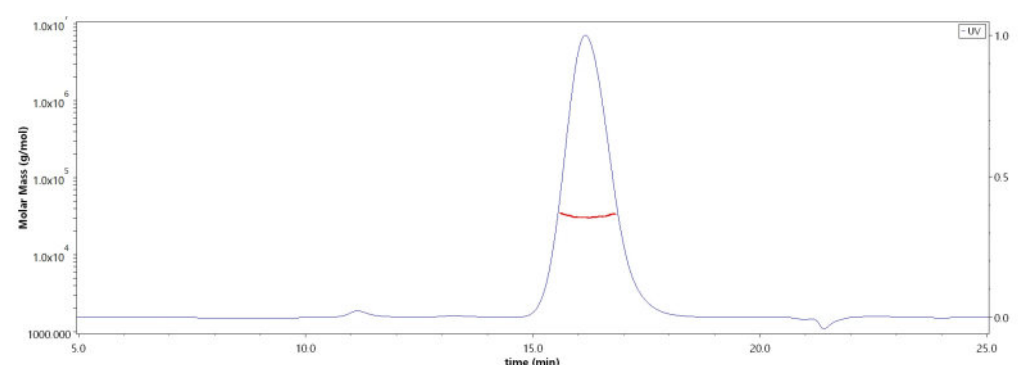
Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

- -20°C to -70°C for 24 months in lyophilized state;
- -70°C for 12 months under sterile conditions after reconstitution.

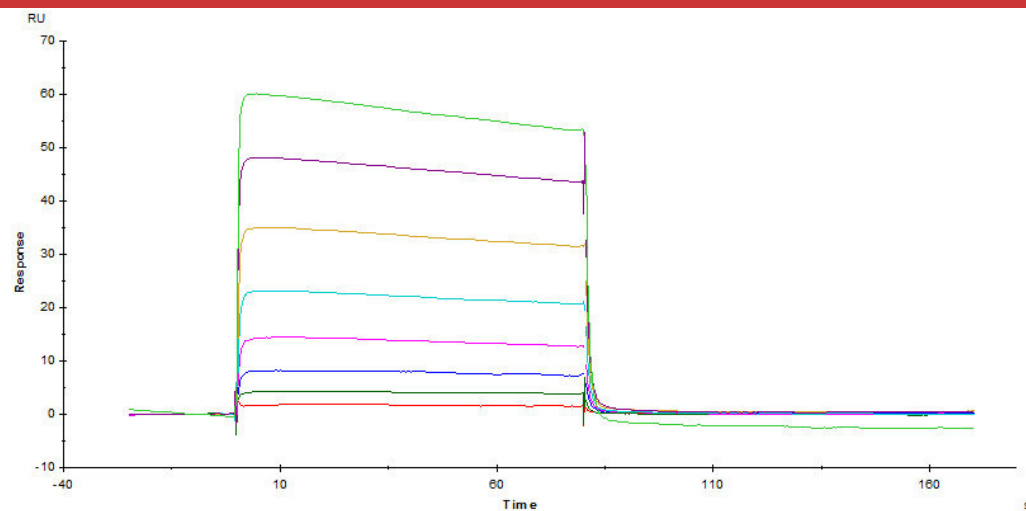
SDS-PAGE

Human CD32a (H167), 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 95%.

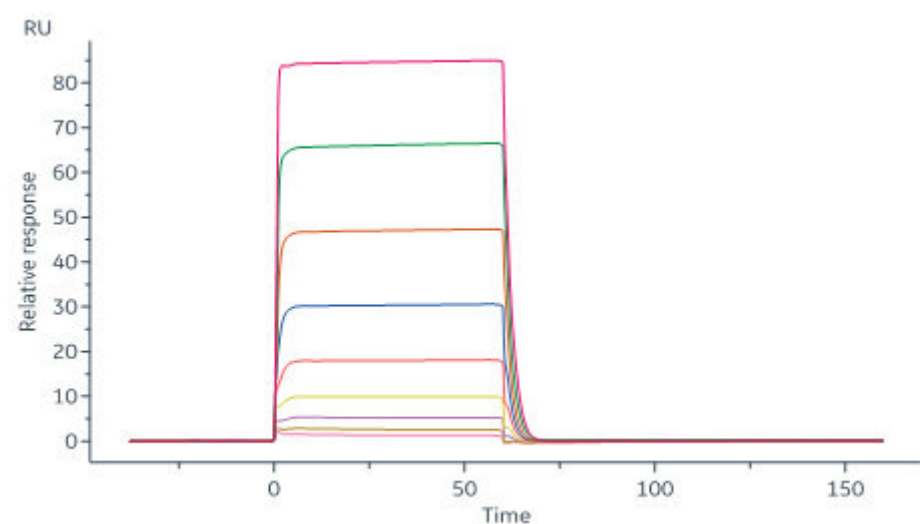
Bioactivity-SPR**SEC-MALS**

The purity of Human CD32a (H167), His Tag (Cat. No. CD1-H5223) was more than 90% and the molecular weight of this protein is around 25-35 kDa verified by SEC-MALS.

[Report](#)

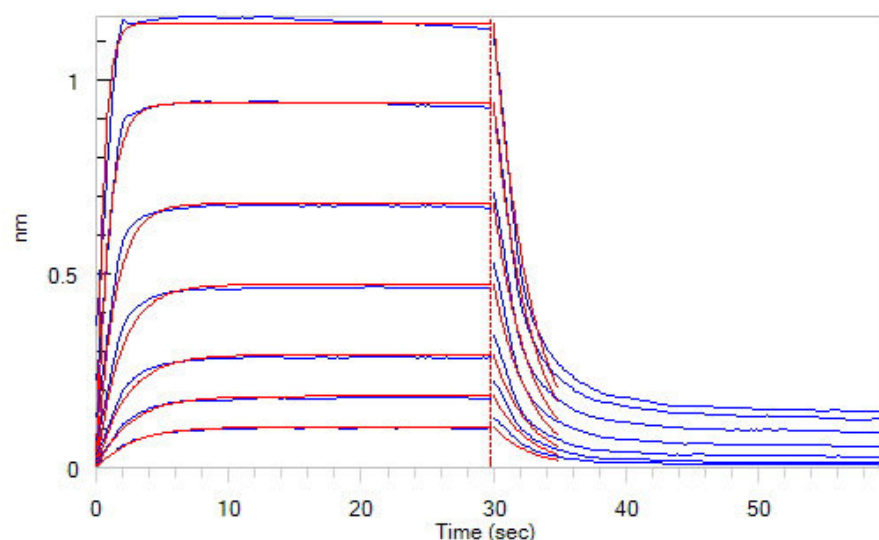


Immobilized Human CD32a (H167), His Tag (SPR & BLI verified) (Cat. No. CD1-H5223) on CM5 Chip via anti-His antibody, can bind Rituximab with an affinity constant of 1.45 μM as determined in a SPR assay (Biacore T200) (QC tested).



Rituximab immobilized on CM5 Chip can bind Human CD32a (H167), His Tag (Cat. No. CD1-H5223) with an affinity constant of 0.882 μM as determined in SPR assay (Biacore 8K) (Routinely tested).

Bioactivity-BLI



Loaded Human CD32a (H167), His Tag (SPR & BLI verified) (Cat. No. CD1-H5223) on HIS1K Biosensor, can bind Rituximab with an affinity constant of 1.30 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 Fc γ RII /CD32 (A, B, and C) and one for mouse Fc γ 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 if you have any question on this product.