

Synonym

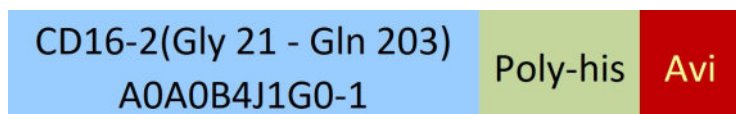
Fc gamma RIV,CD16-2,Fcgr4

Source

Biotinylated Mouse Fc gamma RIV, His,Avitag (BLI verified)(FC4-M82E8) is expressed from human 293 cells (HEK293). It contains AA Gly 21 - Gln 203 (Accession # [A0A0B4J1G0-1](#)).

Predicted N-terminus: Gly 21

Molecular Characterization



This protein carries a polyhistidine tag at the C-terminus, followed by an Avi tag (Avitag™)

The protein has a calculated MW of 24.6 kDa. The protein migrates as 30-40 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

Labeling

Biotinylation of this product is performed using Avitag™ technology. Briefly, the single lysine residue in the Avitag is enzymatically labeled with biotin.

Protein Ratio

Passed as determined by the HABA assay / binding ELISA.

Endotoxin

Less than 1.0 EU per µg by the LAL method.

Purity

>90% as determined by SDS-PAGE.

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

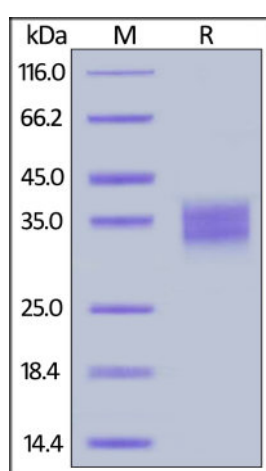
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

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 12 months under sterile conditions after reconstitution.

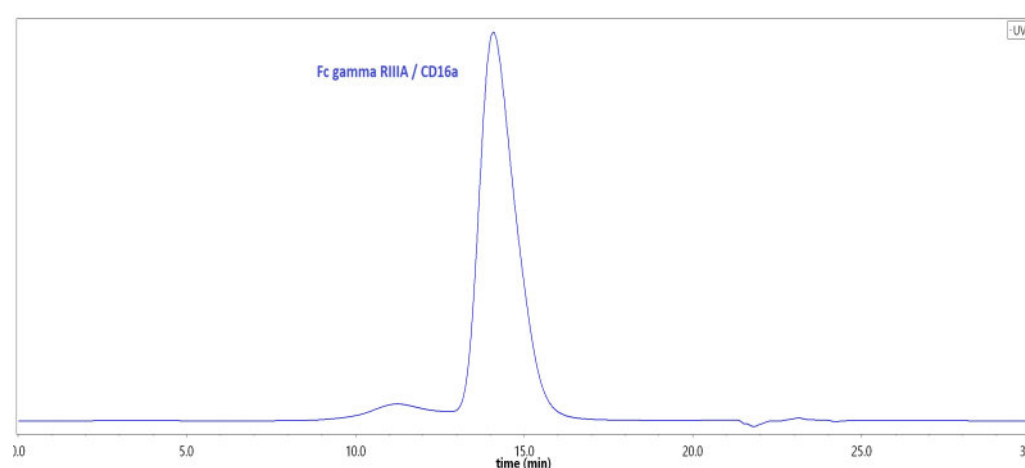
SDS-PAGE



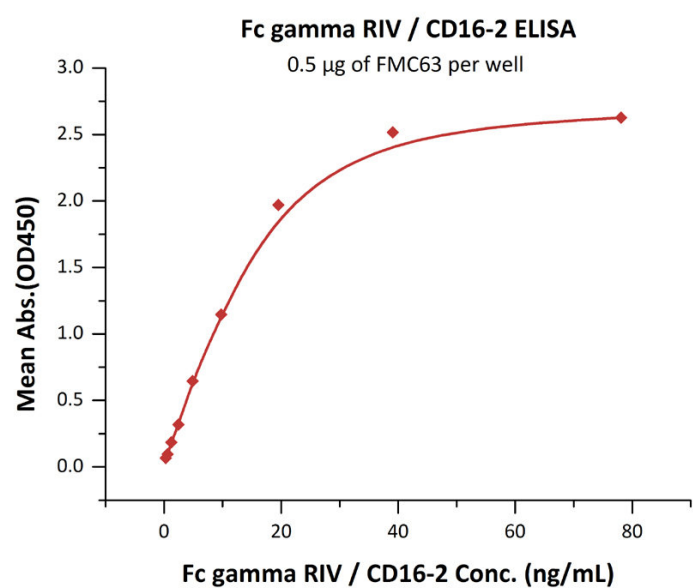
Biotinylated Mouse Fc gamma RIV, His,Avitag (BLI verified) on SDS-PAGE under reducing (R) condition. The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 90%.

Bioactivity-ELISA

SEC-HPLC

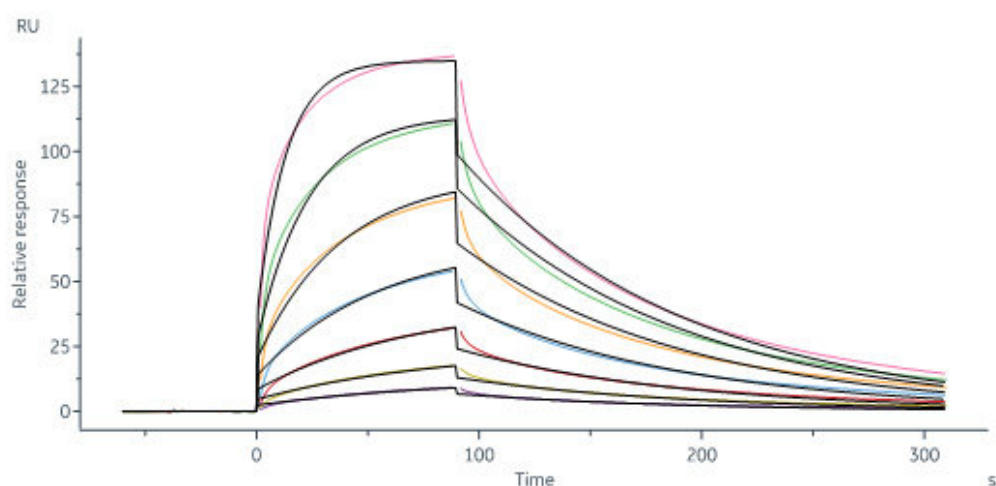


The purity of Biotinylated Mouse Fc gamma RIV, His,Avitag (BLI verified) (Cat. No. FC4-M82E8) was greater than 85% as determined by SEC-HPLC.

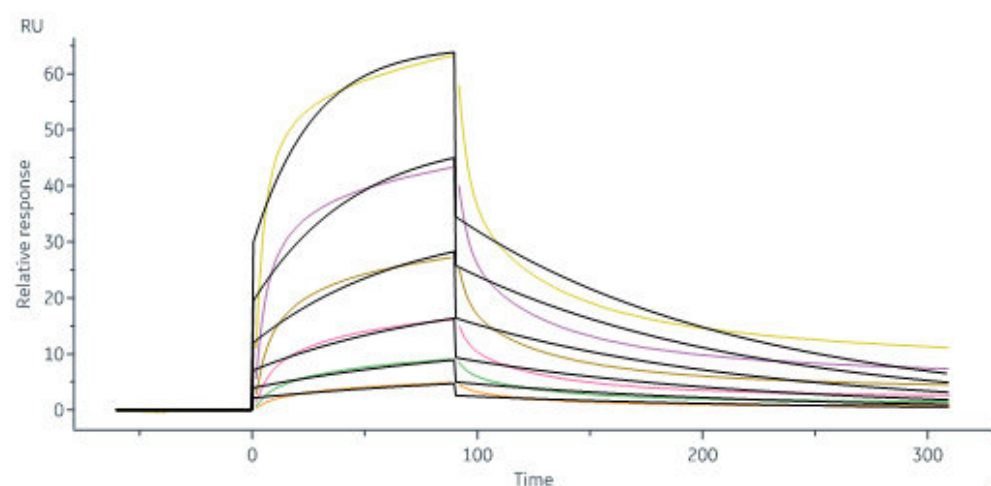


Immobilized FMC63 at 5 µg/mL (100 µL/well) can bind Biotinylated Mouse Fc gamma RIV, His,Avitag (BLI verified) (Cat. No. FC4-M82E8) with a linear range of 0.3-20 ng/mL (Routinely tested).

Bioactivity-SPR

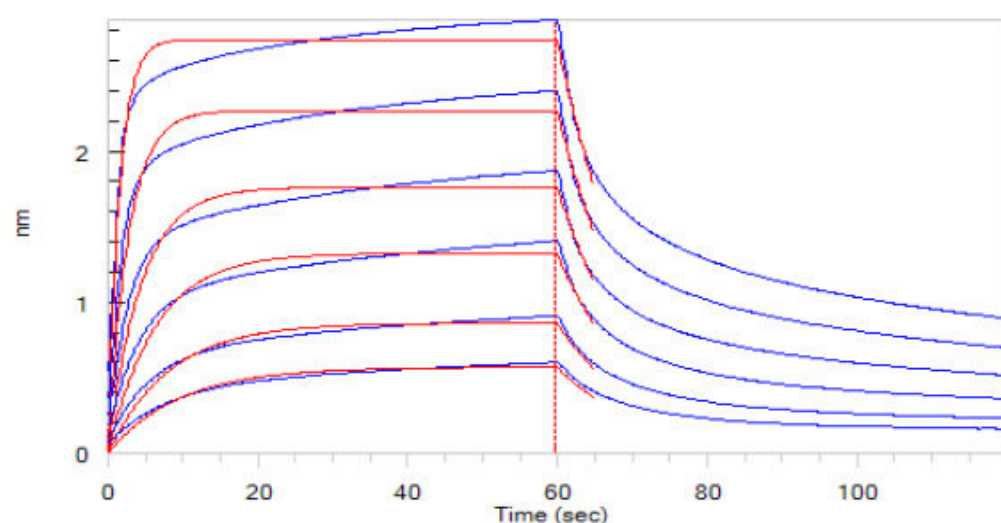


Biotinylated Mouse Fc gamma RIV, His,Avitag (BLI verified) (Cat. No. FC4-M82E8) captured on Biotin CAP - Series S sensor Chip can bind Herceptin with an affinity constant of 0.186 µM as determined in a SPR assay (Biacore 8K) (Routinely tested).



Biotinylated Mouse Fc gamma RIV, His,Avitag (BLI verified) (Cat. No. FC4-M82E8) captured on Biotin CAP - Series S sensor Chip can bind Monoclonal Anti-Human CD3 Antibody, Mouse IgG2a (Clone: OKT3), Ultra-low endotoxin (Cat. No. CDE-M120a) with an affinity constant of 31.7 nM as determined in a SPR assay (Biacore 8K) (Routinely tested).

Bioactivity-BLI



Biotinylated Mouse Fc gamma RIV, His,Avitag (BLI verified) (Cat. No. FC4-M82E8) on SA Biosensor, can bind Rituximab with an affinity constant of 0.394 µM as determined in BLI assay (ForteBio Octet Red96e) (QC tested).

Background

FcγR4 (Low affinity immunoglobulin gamma Fc region receptor IV) is also known as CD16-2, FcγRIV, receptor for the Fc region of immunoglobulin gamma. Also acts as a receptor for the Fc region of immunoglobulin epsilon. Binds with intermediate affinity to both IgG2a and IgG2b. Does not display binding to IgG1 or IgG3. Plays a role in promoting bone resorption by enhancing osteoclast differentiation following binding to IgG2a. Binds with low affinity to both the a and b allotypes of IgE. Has also been shown to bind to IgE allotype a only but not to allotype b. Binding to IgE promotes macrophage-mediated phagocytosis, antigen presentation to T cells, production of proinflammatory cytokines and the late phase of cutaneous allergic reactions

Clinical and Translational Updates

Please contact us via TechSupport@acrobiosystems.com if you have any question on this product.