Catalog # IG1-H52H5



#### Synonym

IgG1

#### Source

Human IgG1 Fc (C103S, M135Y, S137T, T139E) Protein, His Tag (IG1-H52H5) is expressed from human 293 cells (HEK293). It contains AA Pro 100 - Lys 330 (Accession # <u>P01857-1</u> (C103S, M135Y, S137T, T139E)). Predicted N-terminus: Pro 100

### **Molecular Characterization**

C103S, M135Y, S137T, T139E IgG1 Fc (Pro 100- Lys 330) P01857-1 Poly-his

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

The protein has a calculated MW of 27.8 kDa. The protein migrates as 33-38 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

## Endotoxin

Less than 1.0 EU per  $\mu g$  by the LAL method.

## Purity

>90% as determined by SDS-PAGE.

#### Formulation

Lyophilized from 0.22 µm filtered solution in 50 mM Tris, 100 mM Glycine, 25 mM Arginine, 150 mM NaCl, pH7.5 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;
- $70^{\circ}$ C for 3 months under sterile conditions after reconstitution.

# **SDS-PAGE**

kDa	М	R
116.0		
66.2		
45.0	_	
35.0	-	-
25.0	_	
18.4		
14.4		

Human IgG1 Fc (C103S, M135Y, S137T, T139E) Protein, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90%.

#### **Bioactivity-ELISA**



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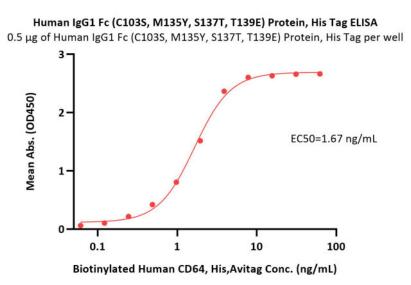




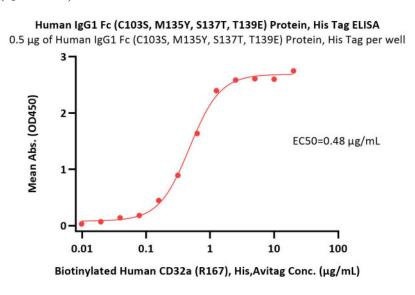
EC50=0.04 µg/mL

100

## Catalog # IG1-H52H5



Immobilized Human IgG1 Fc (C103S, M135Y, S137T, T139E) Protein, His Tag (Cat. No. IG1-H52H5) at 5 µg/mL (100 µL/well) can bind Biotinylated Human CD64, His, Avitag (Cat. No. FCA-H82E8) with a linear range of 0.1-4 ng/mL (QC tested).



Immobilized Human IgG1 Fc (C103S, M135Y, S137T, T139E) Protein, His

Mean Abs. (OD450)

2

1

0.001

0.01

Tag (Cat. No. IG1-H52H5) at 5 µg/mL (100 µL/well) can bind Biotinylated Human CD16a (V176), Avitag, His Tag (SPR & BLI verified) (Cat. No. CDA-H82E9) with a linear range of 0.001-0.156 µg/mL (Routinely tested).

0.1

Biotinylated Human CD16a (V176), Avitag, His Tag (SPR & BLI verified) Conc. (µg/mL)

1

10

Human IgG1 Fc (C103S, M135Y, S137T, T139E) Protein, His Tag ELISA

0.5 µg of Human IgG1 Fc (C103S, M135Y, S137T, T139E) Protein, His Tag per well

Immobilized Human IgG1 Fc (C103S, M135Y, S137T, T139E) Protein, His Tag (Cat. No. IG1-H52H5) at 5 µg/mL (100 µL/well) can bind Biotinylated Human CD32a (R167), His, Avitag (Cat. No. CDA-H82E5) with a linear range of 0.01-1.25 µg/mL (Routinely tested).

# Background

Crystallizable fragments composed of the carboxy-terminal halves of both IMMUNOGLOBULIN HEAVY CHAINS linked to each other by disulfide bonds. Fc fragments contain the carboxy-terminal parts of the heavy chain constant regions that are responsible for the effector functions of an immunoglobulin (COMPLEMENT fixation, binding to the cell membrane via FC RECEPTORS, and placental transport). IgG1 Fc was reported has a novel role as a potential antiinflammatory drug for treatment of human autoimmune diseases.

# **Clinical and Translational Updates**



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