



Synonym

FCER1A, FCE1A, FcERI

Source

Biotinylated Human Fc epsilon RI alpha Protein, His,Avitag(FCA-H82E3) is expressed from human 293 cells (HEK293). It contains AA Val 26 - Gln 205 (Accession # [P12319-1](#)).

Predicted N-terminus: Val 26

Molecular Characterization

FCER1A(Val 26 - Gln 205)	Poly-his	Avi
P12319-1		

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 50-55 kDa when calibrated against [Star Ribbon Pre-stained Protein Marker](#) under reducing (R) condition (SDS-PAGE) due to glycosylation.

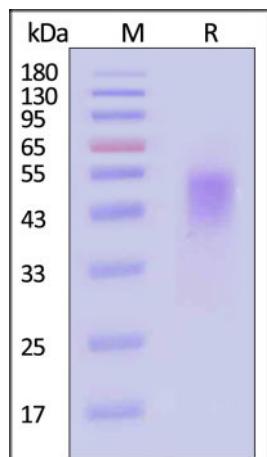
Labeling

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.

SDS-PAGE



Biotinylated Human Fc epsilon RI alpha Protein, His,Avitag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95% (With [Star Ribbon Pre-stained Protein Marker](#)).

Bioactivity-ELISA

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

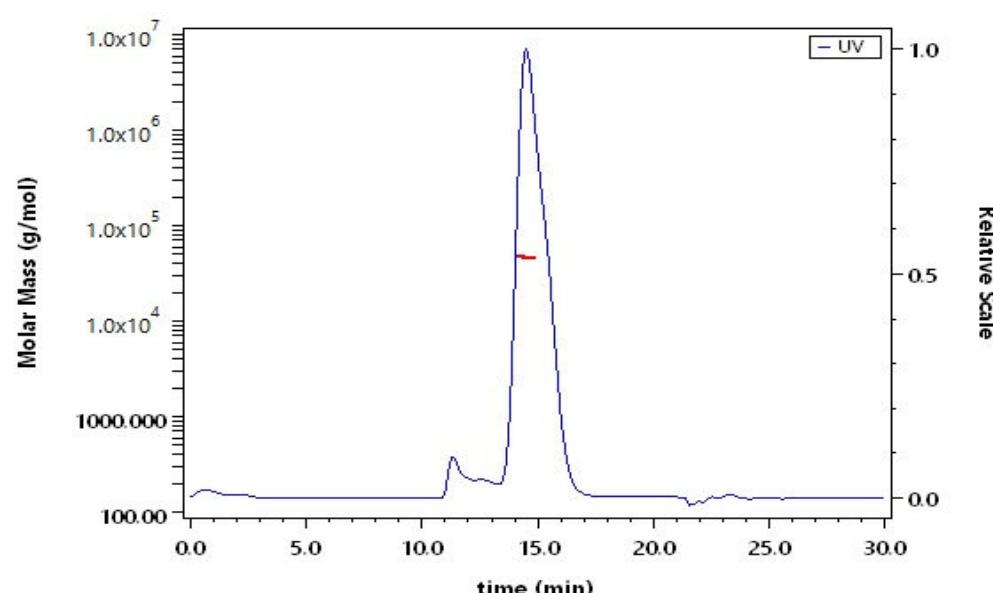
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

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.

SEC-MALS



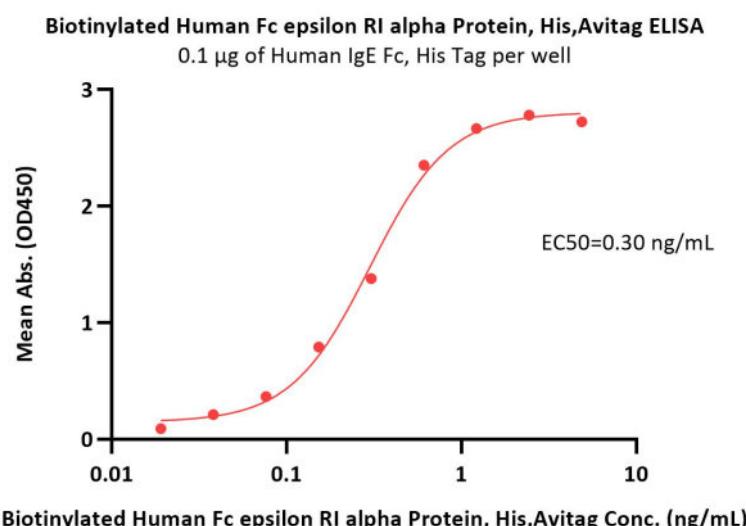
The purity of Biotinylated Human Fc epsilon RI alpha Protein, His,Avitag (Cat. No. FCA-H82E3) is more than 90% and the molecular weight of this protein is around 40-50 kDa verified by SEC-MALS.

[Report](#)

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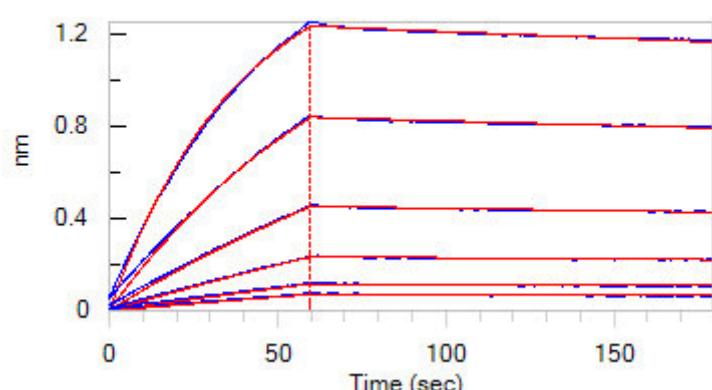


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Immobilized Human IgE Fc, His Tag (Cat. No. IGE-H52H9) at 1 µg/mL (100 µL/well) can bind Biotinylated Human Fc epsilon RI alpha Protein, His,Avitag (Cat. No. FCA-H82E3) with a linear range of 0.02-0.6 ng/mL (QC tested).

Bioactivity-BLI



Loaded Biotinylated Human Fc epsilon RI alpha Protein, His,Avitag (Cat. No. FCA-H82E3) on SA Biosensor, can bind Immunoglobulin E, Human Plasma with an affinity constant of 1.92 nM as determined in BLI assay (ForteBio Octet Red96e) (Routinely tested).

Background

High affinity immunoglobulin epsilon receptor subunit alpha (FCER1A) is also known as Fc-epsilon RI-alpha (FcERI), IgE Fc receptor subunit alpha, FCE1A. FCER1A contains two Ig-like (immunoglobulin-like) domains. FCER1A binds to the Fc region of immunoglobulins epsilon and is a high affinity receptor. FCER1A is responsible for initiating the allergic response, which binding of allergen to receptor-bound IgE leads to cell activation and the release of mediators (such as histamine) responsible for the manifestations of allergy. The same receptor also induces the secretion of important lymphokines. FCER1A plays a central role in allergic disease, coupling allergen and mast cell to initiate the inflammatory and immediate hypersensitivity responses that are characteristic of disorders such as hay fever and asthma.

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