

**Synonym**

FCER1A, FCE1A, FcERI

**Source**

Human Fc epsilon RI alpha, His Tag (FCA-H5228) 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)  
P12319-1

Poly-his

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

The protein has a calculated MW of 22.9 kDa. The protein migrates as 37-55 kDa when calibrated against [Star Ribbon Pre-stained Protein Marker](#) under reducing (R) condition (SDS-PAGE) due to glycosylation.

**Endotoxin**

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

**Purity**

>95% as determined by SDS-PAGE.

>95% as determined by SEC-MALS.

**Formulation**

Lyophilized from 0.22  $\mu$ m 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.*

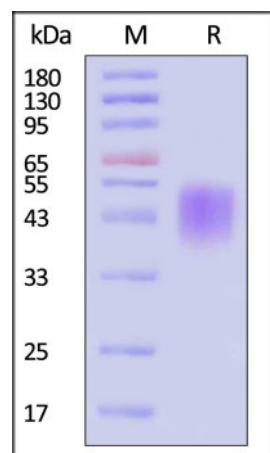
**Storage**

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

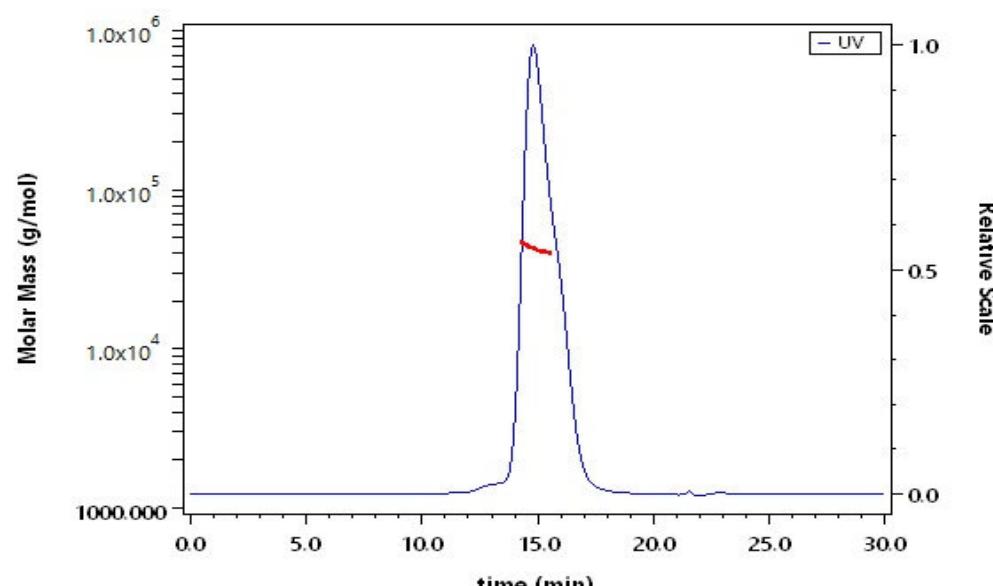
*Please avoid repeated freeze-thaw cycles.*

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**

Human Fc epsilon RI alpha, His Tag 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](#)).

**SEC-MALS**

The purity of Human Fc epsilon RI alpha, His Tag (Cat. No. FCA-H5228) is more than 95% and the molecular weight of this protein is around 37-55 kDa verified by SEC-MALS.

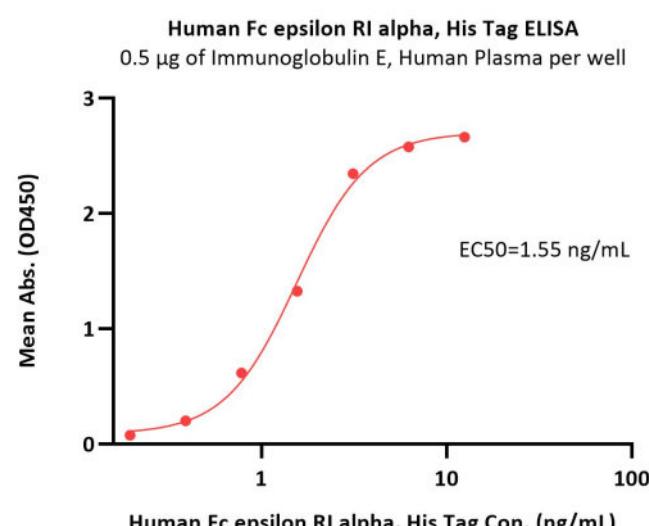
[Report](#)

**Bioactivity-ELISA**

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and more!

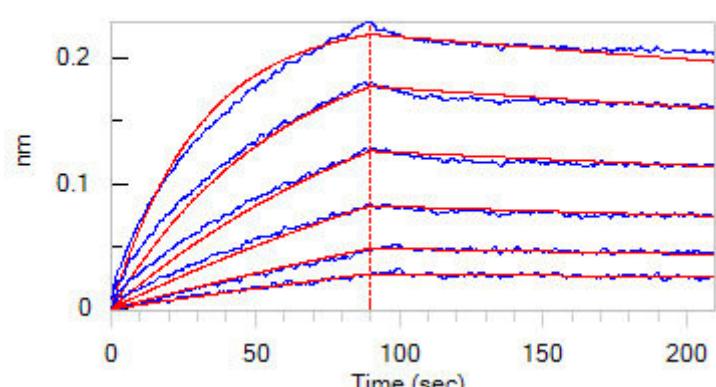


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Immobilized Immunoglobulin E, Human Plasma at 5 µg/mL (100 µL/well) can bind Human Fc epsilon RI alpha, His Tag (Cat. No. FCA-H5228) with a linear range of 0.4-3 ng/mL (QC tested).

### Bioactivity-BLI



Loaded Human Fc epsilon RI alpha, His Tag (Cat. No. FCA-H5228) on AR2G Biosensor, can bind Immunoglobulin E, Human Plasma with an affinity constant of 2.71 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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