

# Recombinant Human Fc epsilon RI alpha protein

Catalog Number: ATGP4124

## PRODUCT INFORMATION

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### Expression system

HEK293

### Domain

26-205aa

### UniProt No.

P12319

### NCBI Accession No.

NP\_001374209.1

### Alternative Names

High affinity immunoglobulin epsilon receptor subunit alpha isoform1, FCERIA, FCERA, Fc epsilon receptor Ia, Fc-epsilon RI-alpha, Fc epsilon RI alpha chain, FcERI, IgE Fc receptor subunit alpha, FCER1A, FCE1A

## PRODUCT SPECIFICATION

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### Molecular Weight

21.8kDa (186aa)

### Concentration

1mg/ml (determined by Absorbance at 280nm)

### Formulation

Liquid in. Phosphate-Buffered Saline (pH 7.4) containing 10% glycerol

### Purity

> 90% by SDS-PAGE

### Endotoxin level

< 1 EU per 1ug of protein (determined by LAL method)

### Biological Activity

Measured by its binding ability in a functional ELISA with Human IgE. The ED50 range  $\leq$  0.01 ug/ml.

### Tag

His-Tag

### Application

SDS-PAGE, Bioactivity

### Storage Condition

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

## BACKGROUND

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# Recombinant Human Fc epsilon RI alpha protein

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## Description

Fc epsilon RI alpha, also known as FCER1A, is an IgE-binding protein of the multichain immune recognition family. Fc epsilon receptor is a tetrameric complex of one alpha, one beta and two gamma subunits on mast cells and basophils. This protein represents the alpha subunit, only the alpha subunit is glycosylated. The immunoglobulin epsilon receptor (IgE receptor) is the initiator of the allergic response. When two or more high-affinity IgE receptors are brought together by allergen-bound IgE molecules, mediators such as histamine that are responsible for allergy symptoms are released. A perturbation occurs that brings about the release of histamine and proteases from the granules in the cytoplasm of the mast cell and leads to the synthesis of prostaglandins and leukotrienes—potent effectors of the hypersensitivity response. Recombinant human Fc epsilon RI alpha/FCER1A, fused to His-tag at C-terminus, was expressed in HEK293 cell and purified by using conventional chromatography techniques.

## Amino acid Sequence

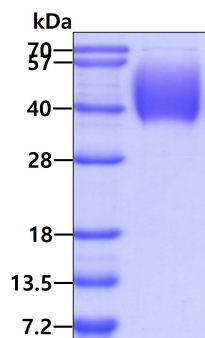
VPQKPKVSLN PPWNRIFKGE NVTLCNGNN FFEVSSTKWF HNGSLSEETN SSLNIVNAKF EDSGEYKCQH QQVNESEPVY LEVFSDWLLL QASAEVVMG QPLFLRCHGW RNWDVYKVIY YKDGEALKYW YENHNISITN ATVEDSGTY Y CTGKVVWQLDY ESEPLNITVI KAPREKYWLQ <HHHHHH>

## General References

ZHANG,Y., et al. (2012) Zhonghua Er Bi Yan Hou Tou Jing Wai Ke Za Zhi 47 (4), 289-293.  
 Zhou,J., et al. (2012) Hum. Immunol. 73 (3), 301-305.  
 D Maurer., et al. (1996) J Immunol. 157(2),607-616.

## DATA

### SDS-PAGE



3ug by SDS-PAGE under reducing condition and visualized by coomassie blue stain

## Biological Activity

# Recombinant Human Fc epsilon RI alpha protein

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Human IgE is coated at 1 ug/ml (100 ul/well) can bind Human Fc epsilon RI alpha. The ED50 range  $\leq 0.01$  ug/ml.

