

# Recombinant human Fc gamma RIIA/CD32a (R167H) protein

Catalog Number: ATGP4116

## PRODUCT INFORMATION

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### Expression system

HEK293

### Domain

30-218aa

### UniProt No.

P12318

### NCBI Accession No.

AAA35827.1

### Alternative Names

Low affinity immunoglobulin gamma Fc region receptor II-a, IgG Fc receptor II-a, CDw32 Fc-gamma RII-a, Fc-gamma-RIIa, FcRII-a, CD32, FCGR2A, FCG2, FCGR2A1, IGFR2, CD32a, FCG2A

## PRODUCT SPECIFICATION

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### Molecular Weight

21.6kDa (195aa)

### Concentration

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

### Formulation

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

### Purity

> 95% 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 IgG1 Fc (CAT# ATGP4094). The ED50 range  $\leq 5$  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.

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## BACKGROUND

### Description

Fc gamma RIIA/CD32a, also known as Low affinity immunoglobulin gamma Fc region receptor II-a, are members of the Ig superfamily that function in the activation or inhibition of immune responses. Fc gamma RIIA is expressed on many immune cell types where inhibitory ITIM-bearing receptors may also be co-expressed and co-engaged by specific ligands. Signaling through Fc gamma RIIA results in the initiation of inflammatory responses that can be modulated by signals from the inhibitory receptors. The strength of the signal is dependent on the ratio of expression of the activating and inhibitory receptors. Besides IC, Fc gamma RII A also binds C-reactive protein (CRP) Two allelic variants of Fc gamma RIIA that differ in their ability to ligate human IgG2 or CRP exist. The R167H allele has been found to have a protective effect against lupus nephritis. Recombinant human Fc gamma RIIA/CD32a, fused to His-tag at C-terminus, was expressed in HEK293 cell and purified by using conventional chromatography techniques.

### Amino acid Sequence

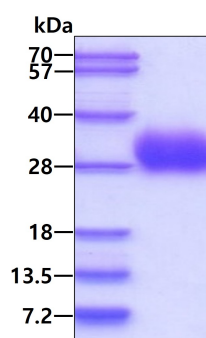
SADSQAAAPP KAVLKLEPPW INVLQEDSVT LTCQGARSPE SDSIQWFHNG NLIPTHTQPS YRFKANNNDS GEYTCQTGQT  
SLSDPVHLTV LSEWLVLQTP HLEFQEGETI MLRCHSWKDK PLVKVTFQON GKSQKFSHLD PTFSIPQANH SHSGDYHCTG  
NIGYTLFSSK PVTITVQVPS MGSSSPMGI<H HHHHH>

### General References

Ravetch, J.V. and S. Bolland (2001) Annu. Rev. Immunol. 19:275-290.  
Chi, M., et al. (2002) J. Immunol. 168:3697-3701.  
Zuniga. R., et al. (2003) Arthritis Rheum. 48:460.

## DATA

### SDS-PAGE



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

### Biological Activity

# Recombinant human Fc gamma RIIA/CD32a (R167H) protein

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Human IgG1 Fc (CAT# ATGP4094) is coated at 1 ug/ml (100 ul/well) can bind Human Fc gamma RIIA/CD32a (H167). The ED50 range  $\leq 5$  ug/ml.

