

## Active Recombinant Rhesus FCGR3 protein, His-tagged

**Cat. No.** FCGR3-4101C    **Lot. No.** (See product label)

### SPECIFICATION

|                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
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| <b>Product Overview</b>     | Recombinant Rhesus FCGR3(Met 1-Gly 206) fused with His tag at C-terminal was expressed in HEK293.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Species</b>              | Rhesus macaque                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Source</b>               | HEK293                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>ProteinLength</b>        | Met 1-Gly 206                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Description</b>          | Fc receptors bind the most common class of antibody, IgG, are called Fc gamma receptors (FcγR). FcγR is divided into three classes, Fc γ RI (CD64), Fc γ RII (CD32), and Fc γ RIII (CD16). CD16 protein is a multifunctional, low/intermediate affinity receptor, which belongs to the immunoglobulin superfamily. It is found on the surface of natural killer cells, neutrophil polymorphonuclear leukocytes, monocytes and macrophages. Mouse CD16 is encoded by a single gene, while, human CD16 is expressed as two distinct forms (CD16a/FcγRIIIa and CD16b/FcγRIIIb) encoded by two different highly homologous genes in a cell type-specific manner. CD16 is involved in phagocytosis, secretion of enzymes, inflammatory mediators, antibody-dependent cellular cytotoxicity (ADCC), and clearance of immune complexes. |
| <b>Predicted N Terminal</b> | Gly 17                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Form</b>                 | Lyophilized from sterile PBS, pH 7.41. Normally 5 % - 8 % trehalose and mannitol are added as protectants before lyophilization. Specific concentrations are included in the                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |

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hardcopy of COA.2. Please contact us for any concerns or special requirements.

**Bio-activity**

Measured by its binding ability in a functional ELISA. Immobilized Rhesus FCGR3-His at 10 µg/ml (100 µl/well) can bind recombinant human IgG1 (Fc) . The EC50 of human IgG1 (Fc) is 0.35-0.81 µg/ml.

**Molecular Mass**

The recombinant rhesus CD16 consists of 201 amino acids and has a calculated molecular mass of 22.7 kDa.

**Endotoxin**

< 1.0 EU per µg of the protein as determined by the LAL method

**Purity**

> 95 % as determined by SDS-PAGE

**Stability**

Samples are stable for up to twelve months from date of receipt at -70 centigrade

**Storage**

Store it under sterile conditions at -20 centigrade to -80 centigrade. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.

**Reconstitution**

A hardcopy of COA with reconstitution instruction is sent along with the products. Please refer to it for detailed information.

**Shipping**

In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature. Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise.

## GENE INFORMATION

**Gene Name**

FCGR3 Fc-gamma RIII [ *Macaca mulatta* ]

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|                            |                                                                                                                                                            |
|----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Official Symbol</b>     | FCGR3                                                                                                                                                      |
| <b>Synonyms</b>            | CD16; FcRIII; Fc gamma RIIla; IgG Fc receptor III                                                                                                          |
| <b>Gene ID</b>             | 720006                                                                                                                                                     |
| <b>mRNA Refseq</b>         | NM_001271655                                                                                                                                               |
| <b>Protein Refseq</b>      | NP_001258584                                                                                                                                               |
| <b>MIM</b>                 |                                                                                                                                                            |
| <b>UniProt ID</b>          | A3RFZ7                                                                                                                                                     |
| <b>Chromosome Location</b> | chromosome: 1                                                                                                                                              |
| <b>Pathway</b>             | Leishmaniasis, organism-specific biosystem; Natural killer cell mediated cytotoxicity, organism-specific biosystem; Phagosome, organism-specific biosystem |

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