

Rhesus CD16 / FCGR3 Protein (His Tag)

Catalog Number: 90013-C08H



Sino Biological
Biological Solution Specialist

General Information

Gene Name Synonym:

FCGR3

Protein Construction:

A DNA sequence encoding the rhesus CD16 (NP_001258584.1) extracellular domain (Met 1-Gly 206) was fused with a polyhistidine tag at the C-terminus.

Source: Rhesus

Expression Host: HEK293 Cells

QC Testing

Purity: > 95 % as determined by SDS-PAGE

Bio Activity:

Measured by its binding ability in a functional ELISA. Immobilized Rhesus FCGR3-His (cat:90013-C08H) at 10 µg/ml (100 µl/well) can bind recombinant human IgG1 (Fc) (Cat:10702-HNAC). The EC₅₀ of human IgG1 (Fc) (Cat:10702-HNAC) is 0.35-0.81 µg/ml.

Endotoxin:

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

Stability:

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

Predicted N terminal: Gly 17

Molecular Mass:

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

Formulation:

Lyophilized from sterile PBS, pH 7.4

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Storage:

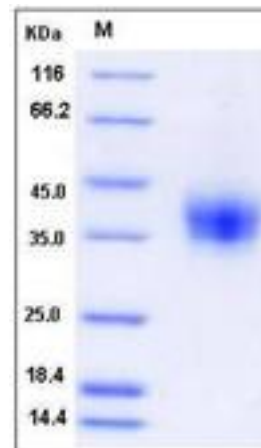
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

Fc receptors bind the most common class of antibody, IgG, are called Fc gamma receptors (FcγR). FcγR is divided into three classes, FcγRI (CD64), FcγRII (CD32), and FcγRIII (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.

References

- 1.Edberg JC, *et al.* (2002) Genetic linkage and association of Fcγ receptor IIIA (CD16A) on chromosome 1q23 with human systemic lupus erythematosus. *Arthritis Rheum.* 46(8): 2132-40.
- 2.Li P, *et al.* (2002) Recombinant CD16A-Ig forms a homodimer and cross-blocks the ligand binding functions of neutrophil and monocyte Fcγ receptors. *Mol Immunol.* 38(7): 527-38.
- 3.Li P, *et al.* (2007) Affinity and kinetic analysis of Fcγ receptor IIIa (CD16a) binding to IgG ligands. *J Biol Chem.* 282(9): 6210-21.

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