

CD16/FCGR3 Protein, Cynomolgus, Recombinant (His & Avi), Biotinylated

General Information

Synonyms:	Fc receptor, IgG, low affinity III
Protein Construction:	Gly17-Gln208
Species:	Cynomolgus
Expression Host:	HEK293 Cells
Accession:	Q8SPW2-1
Molecular Weight:	24.86 kDa (Predicted); 42-52 kDa (Reducing conditions due to glycosylation)

QC Testing

Biological Activity:	Biotinylated Cynomolgus Fc gamma RIII, His Tag captured on CM5 Chip via Anti-His Antibody can bind Rituximab with an affinity constant of 0.15 μM as determined in SPR assay (Biacore T200) (QC Test).
Purity:	> 95% as determined by Bis-Tris PAGE; > 95% as determined by HPLC
Endotoxin:	< 1.0 EU/ μg of the protein as determined by the LAL method.
Formulation:	Lyophilized from 0.22 μm filtered solution in PBS (pH 7.4). Normally 8% trehalose is added as protectant before lyophilization.

Preparation and Storage

Reconstitution:

Reconstitute the lyophilized protein in distilled water. The product concentration should not be less than 100 $\mu\text{g}/\text{ml}$. Before opening, centrifuge the tube to collect powder at the bottom. After adding the reconstitution buffer, avoid vortexing or pipetting for mixing.

Stability & Storage:

It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C . For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

Immunoglobulin G (IgG) Fc receptors play a critical role in linking IgG antibody-mediated immune responses with cellular effector functions. A high resolution map of the binding site on human IgG1 for human Fc gamma RI, Fc gamma RIIA, Fc gamma RIIB, Fc gamma RIIIA, and FcRn receptors has been determined. A common set of IgG1 residues is involved in binding to all Fc gamma R; Fc gamma RII and Fc gamma RIII also utilize residues outside

this common set.

Reference

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.

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.

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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