

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

### General Information

|                       |   |
|-----------------------|---|
| Synonyms:             | CD16;Fc receptor, IgG, low affinity III                                     |
| Protein Construction: | Leu32-Thr215  |
| Species:              | Mouse   |
| Expression Host:      | HEK293 Cells  |
| Accession:            | Q5D5I8  |
| Molecular Weight:     | 23.97 kDa (Predicted); 40-50 kDa (Reducing conditions due to glycosylation) |

### QC Testing

|                      |  |
|----------------------|--|
| Biological Activity: | OKT3 captured on CM5 Chip via Protein A can bind Biotinylated Mouse Fc gamma RIII, His Tag with an affinity constant of 0.164 $\mu$ M as determined in SPR assay (Biacore T200). |
| Purity:              | > 95% as determined by Bis-Tris PAGE;<br>> 95% as determined by HPLC   |
| Endotoxin:           | < 1.0 EU/ $\mu$ g of the protein as determined by the LAL method.  |
| Formulation:         | Lyophilized from 0.22 $\mu$ m 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  $\mu$ g/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 Fcgamma 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 Fcgamma receptors. *Mol Immunol.* 38(7): 527-38.

Li P, et al. (2007) Affinity and kinetic analysis of Fcgamma receptor IIIa (CD16a) binding to IgG ligands. *J Biol Chem.* 282(9): 6210-21.

**Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins**

This product is for Research Use Only · Not for Human or Veterinary or Therapeutic Use

Tel:781-999-4286 E\_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481