Data Sheet (Cat.No.TMPK-01115)

TargetMol

CD16 Protein, Cynomolgus, Recombinant (His)

General Information

Synonyms:	FcgRIII;FCR-10;FcRIII;IMD20;FCG3;CD16A;FCGR3;Fc-gamma RIII;IgG Fc receptor III;IGFR3; CD16;Fc γ RIIB;FCRIIIA;Fc-γ RIII
Protein Construction:	Gly17-Gln208
Species:	Cynomolgus
Expression Host:	HEK293 Cells
Accession:	Q8SPW2-1
Molecular Weight:	23.1 kDa (predicted). Due to glycosylation, the protein migrates to 45-55 kDa based on Tris-Bis PAGE result.

QC Testing

Biological Activity:	Rituximab captured on CM5 Chip via Protein A can bind Cynomolgus Fc gamma RIII, His Tag with an affinity constant of 0.251 μM as determined in SPR assay.
Purity:	> 95% as determined by Tris-Bis PAGE; > 95% as determined by HPLC
Endotoxin:	< 1.0 EU/μg of the protein as determined by the LAL method.
Formulation:	Lyophilized from a solution filtered through a 0.22 μm filter, containing PBS (pH 7.4). Typically, 8% trehalose is incorporated as a protective agent before lyophilization.

Preparation and Storage

Reconstitution:

Reconstitute the lyophilized protein in distilled water. The product concentration should not be less than 100 μg/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

Shields RL, et al. High resolution mapping of the binding site on human IgG1 for Fc gamma RI, Fc gamma RII, Fc gamma RIII, and FcRn and design of IgG1 variants with improved binding to the Fc gamma R. J Biol Chem. 2001 Mar 2;276(9):6591-604. doi: 10.1074/jbc.M009483200. Epub 2000 Nov 28. PMID: 11096108.