

Active Recombinant Cynomolgus Monkey FCGR2B protein, His-tagged

Cat. No. FCGR2B-278C **Lot. No.** (See product label)

SPECIFICATION

Product Overview

Recombinant Cynomolgus Monkey FCGR2B(Val11-Pro288) fused with His tag at C-terminal was expressed in HEK293.

Species

Cynomolgus

Source

HEK293

ProteinLength

11-288 a.a.

Description

Receptors for the Fc region of IgG (Fc gamma Rs) are members of the Ig superfamily that function in the activation or inhibition of immune responses such as degranulation, phagocytosis, ADCC (antibody-dependent cellular toxicity), cytokine release, and B cell proliferation. The Fc gamma Rs have been divided into three classes based on close relationships in their extracellular domains; these groups are designated Fc gamma RI/CD64, Fc gamma RII/CD32, and Fc gamma RIII/CD16. Each group may be encoded by multiple genes and exist in different isoforms depending on species and cell type. The CD64 proteins are high affinity receptors (~10⁻⁸ -10⁻⁹ M) capable of binding monomeric IgG, whereas the CD16 and CD32 proteins bind IgG with lower affinities (~10⁻⁶-10⁻⁷ M) and only recognize IgG aggregates surrounding multivalent antigen. Mature cynomolgus Fc gamma RI consists of a 277 amino acid (aa) extracellular domain (ECD) with three Ig-like domains, a 21 aa transmembrane segment, and a 61 aa cytoplasmic domain. Within the ECD, cynomolgus Fc gamma RI shares 95%, 72%, and 66% aa sequence

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identity with human, mouse, and rat Fc gamma RI, respectively. It binds cynomolgus IgG subclasses 1-4 as well as human IgG 1, 3, and 4. It delivers an activating signal via the associated Fc R gamma accessory chain. Fc gamma RI is expressed constitutively on monocytes, macrophages, and monocyte-derived dendritic cells and can be induced on neutrophils, eosinophils, mast cells, and glomerular mesangial cells. Its expression is up-regulated during bacterial infections and sepsis.

Predicted N Terminal Val11

Form Lyophilized from a 0.2 µm filtered solution in PBS.

Bio-activity Measured by its binding ability in a functional ELISA. When Human IgG is immobilized at 0.5 µg/mL, 100 µL/well, the concentration of Recombinant Cynomolgus Monkey Fc gamma RI/CD64 that produces 50% of the optimal binding response is approximately 1-5 ng/mL.

Molecular Mass Predicted Molecular Mass: 32 kDa
SDS-PAGE: 38-46 kDa, reducing conditions

Endotoxin <0.1 EU per 1 µg of the protein by the LAL method.

Purity >95%, by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie® Blue Staining.

Storage Use a manual defrost freezer and avoid repeated freeze-thaw cycles.
12 months from date of receipt, -20 to -70 centigrade as supplied.
1 month, 2 to 8 centigrade under sterile conditions after reconstitution.
3 months, -20 to -70 centigrade under sterile conditions after reconstitution.

Reconstitution Reconstitute at 200 µg/mL in PBS.

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GENE INFORMATION

Gene Name	FCGR1A Fc fragment of IgG, high affinity Ia, receptor (CD64) [<i>Macaca fascicularis</i>]
Official Symbol	FCGR1A
Synonyms	FCGR1A; Fc fragment of IgG, high affinity Ia, receptor (CD64)
Gene ID	102147198
mRNA Refseq	NM_001284040
Protein Refseq	NP_001270969

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