

Active Recombinant Human FCGR3A, His & AVI Tagged, Biotinylated, 176 Val

Cat. No. FCGR3A-2965H Lot. No. (See product label)

SPECIFICATION

Product Overview	A DNA sequence encoding the extracellular domain (Met 1-Gln 208) of human CD16a (AAH17865.1) was fused with a c-terminal polyhistidine tagged AVI tag at the C-terminus. The expressed protein was biotinylated in vivo by the Biotin-Protein ligase (BirA enzyme) which is co-expressed.
Species	Human
Source	Human Cells
ProteinLength	Met1-Gln208
Description	Receptors for the Fc region of immunoglobulin G (Fcy R) are divided into three classes and CD16 (Fcy RIII) is a multifunctional, low/intermediate affinity receptor. In human, CD16 is expressed as two distinct forms (CD16a and CD16b) encoded by two different highly homologous genes in a cell type-specific manner. CD16b is a low-affinity, GPI-linked receptor expressed by neutrophils and eosinophils, whereas CD16a is an intermediate affinity polypeptide-anchored transmembrane glycoprotein expressed by a subset of T lymphocytes, natural killer (NK) cells, monocytes, and macrophages. CD16a has an immunoreceptor tyrosine-based activation motif (ITAM) in its cytoplasmic domain and delivers an activation signal in the immune responses.
Form	Lyophilized from sterile PBS , pH 7.4
Bio-activity	1. Measured by its ability to bind recombinant human IgG1 in a functional ELISA.2.

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	Measured by its binding ability in a functional ELISA. Immobilized human CD16a-AVI-His at 10 µg/ml (100µl/well) can bind recombinant human IgG1 (Fc) with a linear range of 0.31-5 µg/ml.
Molecular Mass	The secreted recombinant human CD16a consists of 227 amino acids and predicts a molecular mass of 25.6 KDa. By SDS-PAGE under reducing conditions, the apparent molecular mass of the protein is approximately 48 KDa due to glycosylation.
Endotoxin	< 1.0 eu per µg of the protein as determined by the LAL method.
Purity	>90 % as determined by SDS-PAGE
Storage	Store it under sterile conditions at -70°C. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
Reconstitution	Reconstitute with water to desired concentration.
Conjugation	Biotin

GENE INFORMATION

Gene Name	FCGR3A Fc fragment of IgG, low affinity IIIa, receptor (CD16a) [Homo sapiens]
Official Symbol	FCGR3A
Synonyms	FCGR3A; Fc fragment of IgG, low affinity IIIa, receptor (CD16a); Fc fragment of IgG, low affinity IIIa, receptor for (CD16) , FCG3, FCGR3; low affinity immunoglobulin gamma Fc region receptor III-A; CD16; CD16a; FcgammaRIIIA; CD16a antigen; fc-gamma RIII; Fc-gamma RIIIa; Fc-gamma RIII-alpha; igG Fc receptor III-2; Fc gamma receptor III-A; Fc-gamma receptor IIIb (CD16); neutrophil-specific antigen NA; Fc-gamma receptor III-2 (CD 16); immunoglobulin G Fc receptor III; Fc fragment of IgG,

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	low affinity III, receptor for (CD16); FCG3; CD16A; FCGR3; IGFR3; FCR-10; FCRIII; FCGRIII; FCRIIIA;
Gene ID	2214
mRNA Refseq	NM_000569
Protein Refseq	NP_000560
MIM	146740
UniProt ID	P08637
Chromosome Location	1q23
Pathway	Adaptive Immune System, organism-specific biosystem; Fc gamma R-mediated phagocytosis, organism-specific biosystem; Fc gamma R-mediated phagocytosis, conserved biosystem; Immune System, organism-specific biosystem; Immunoregulatory interactions between a Lymphoid and a non-Lymphoid cell, organism-specific biosystem; Leishmaniasis, organism-specific biosystem; Leishmaniasis, conserved biosystem;
Function	IgG binding; receptor activity;

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