

Active Recombinant Human FCGR2A, His & AVI Tagged, Biotinylated, 167 His

Cat. No. FCGR2A-2963H **Lot. No.** (See product label)

SPECIFICATION

Product Overview

A DNA sequence encoding the extracellular domain (Met 1-Met 210) of human CD32a (P12318-1) 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-Met210

Description

Human CD32 class is encoded by three closely related genes, and designated Fcγ RII A, B, and C which share 94 - 99% amino acid identity in their extracellular domains but differ substantially in their transmembrane and cytoplasmic domains. Fcγ RII A is expressed on cells of both myeloid and lymphoid lineages as well as on cells of non-hematopoietic origin. Associated with an ITAM (immunoreceptor tyrosine-based activation motif)-bearing adapter subunit, Fcγ Rγ, CD32a (Fcγ RII A) delivers an activating signal upon ligand binding, and results in the initiation of inflammatory responses including cytolysis, phagocytosis, degranulation and cytokine production. The responses can be modulated by signals from the coexpressed inhibitory receptors such as Fcγ RII B, and the strength of the signal is dependent on the ratio of expression of the activating and inhibitory receptors.

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Form	Lyophilized from sterile PBS , pH 7.4
Bio-activity	1. Measured by its binding ability in a functional ELISA. Immobilized human IgG2 at 10 µg/ml (100 µl/well) can bind biotinylated human CD32 with a linear ranger of 0.16-0.8 µg/ml.2. Using the Octet RED System, the affinity constant (Kd) of CD32a-AVI-His + BirA bound to human IgG was 12nM.
Molecular Mass	The recombinant human CD32a consists of 213 amino acids after removal of the signal peptide and predicts a molecular mass of 23.6 KDa. It migrates as an approximately 33 KDa band due to glycosylation by SDS-PAGE under reducing conditions.
Endotoxin	< 1.0 eu per µg of the protein as determined by the LAL method.
Purity	>95 % 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	FCGR2A Fc fragment of IgG, low affinity IIa, receptor (CD32) [Homo sapiens]
Official Symbol	FCGR2A
Synonyms	FCGR2A; Fc fragment of IgG, low affinity IIa, receptor (CD32); Fc fragment of IgG, low affinity IIa, receptor for (CD32) , FCG2, FCGR2, FCGR2A1; low affinity

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	immunoglobulin gamma Fc region receptor II-a; CD32; CD32A; CDw32; IGFR2; Immunoglobulin G Fc receptor II; fcRII-a; fc-gamma-RIIa; fc-gamma RII-a; igG Fc receptor II-a; FCG2; FcGR; FCGR2; FCGR2A1; MGC23887; MGC30032;
Gene ID	2212
mRNA Refseq	NM_001136219
Protein Refseq	NP_001129691
MIM	146790
UniProt ID	P12318
Chromosome Location	1q23
Pathway	Fc gamma R-mediated phagocytosis, organism-specific biosystem; Fc gamma R-mediated phagocytosis, conserved biosystem; Leishmaniasis, organism-specific biosystem; Leishmaniasis, conserved biosystem; Osteoclast differentiation, organism-specific biosystem; Osteoclast differentiation, conserved biosystem; Phagosome, organism-specific biosystem;
Function	IgG binding; receptor activity;