

Recombinant Human FCGR3A Protein, C-His-tagged

Product Information

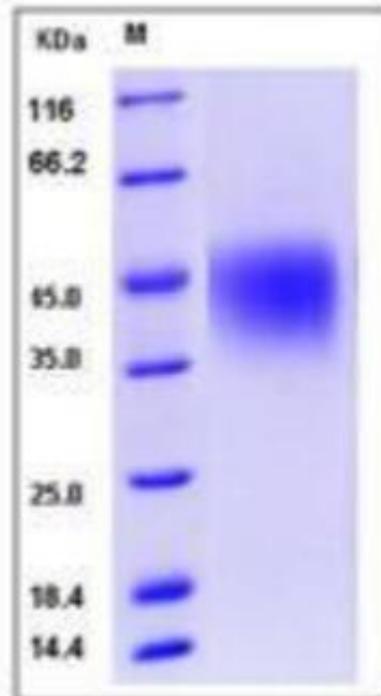
Cat	IMP-1910
Official Symbol	FCGR3A
Product Overview	Recombinant extracellular domain (Met1-Gln208) of human CD16a (P08637-1, with natural variant Phe 176 Val) was expressed with a C-terminal polyhistidine tag.
Description	<p>The Fc receptor with low affinity for IgG (FCGR3, or CD16) is encoded by 2 nearly identical genes, FCGR3A and FCGR3B, resulting in tissue-specific expression of alternative membrane-anchored isoforms. FCGR3A, it is also known as CD16a, encodes a transmembrane protein expressed on activated monocytes/macrophages, natural killer (NK) cells, and a subset of T cells. CD16a / FCGR3A is a receptor expressed on NK cells that facilitates antibody dependent cellular cytotoxicity (ADCC) by binding to the Fc portion of various antibodies. CD16a / FCGR3A also has a broader function. CD16a / FCGR3A is directly involved in the lysis of some virus-infected cells and tumor cells by NK cells, independent of antibody binding. Cross-linking of CD16a / FCGR3A on NK cells resulted in increased intracellular Ca²⁺ levels and a cascade of biochemical events similar to those activated by the T cell receptor. CD16a / FCGR3A on human NK cells is a lysis receptor that mediates the direct killing of some virus infected and tumor cells, independent of antibody ligation.</p>
Expression System	CHO
Species	Human
Tag	C-His
Predicted N Terminal	Gly 17
Form	Lyophilized from sterile PBS, pH 7.2, 5 % trehalose, 5% mannitol and 0.01% Tween80.
Molecular Mass	The secreted recombinant human CD16a consists of 203 amino acids and predicts a molecular mass of 23.3 KDa. By SDS-PAGE under reducing conditions, the apparent molecular mass of rhCD16a is approximately 40-45 KDa due to glycosylation.
Protein length	Met1-Gln208
Endotoxin	< 1.0 EU/μg of the protein as determined by the LAL method
Purity	> 95 % as determined by SDS-PAGE
Storage	Samples are stable for up to twelve months from date of receipt at -20 to -80 centigrade. Store it under sterile conditions at -20 to -80 centigrade. It is

recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.

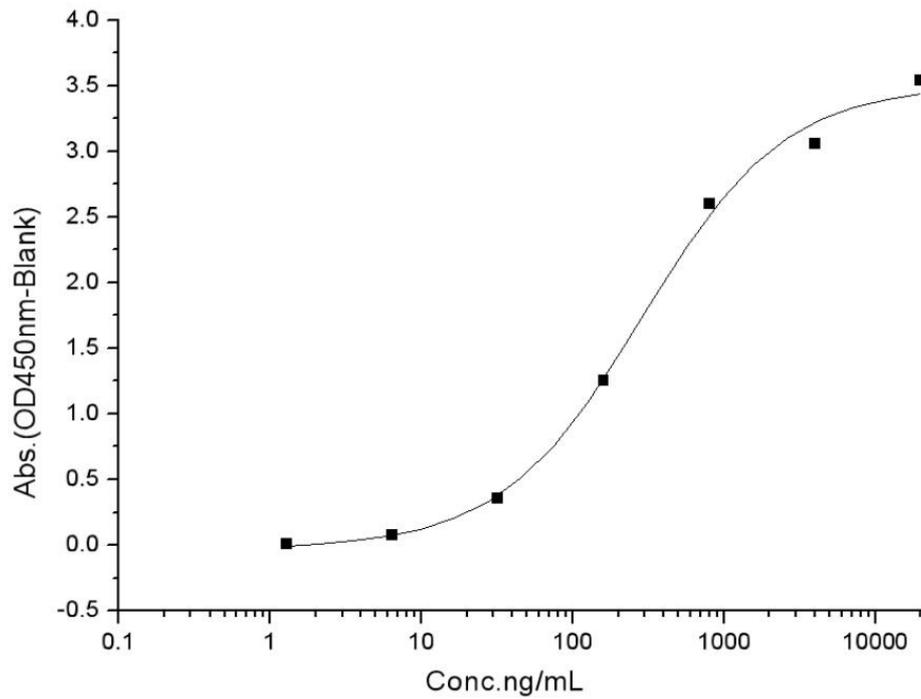
Reconstitution

A hardcopy of COA with reconstitution instruction is sent along with the products. Please refer to it for detailed information.

SDS-PAGE



Bioactivity-ELISA 1



Measured by its binding ability in a functional ELISA. Immobilized CD16a-His at 2 μ g/mL (100 μ L/well) can bind human IgG1, the EC50 of human IgG1 is 200-600 ng/mL.