

Recombinant Human CD16a/FCGR3A Protein (176 Phe, His&AVI Tag)

Catalog Number: PKSH030285

Note: Centrifuge before opening to ensure complete recovery of vial contents.

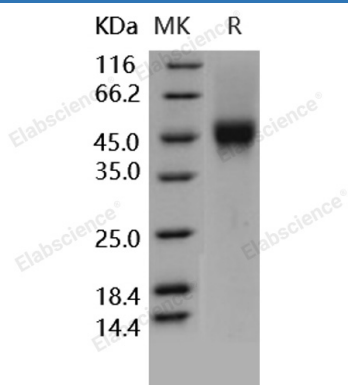
Description

Species	Human
Source	HEK293 Cells-derived Human CD16a/FCGR3A(176 Phe) protein Met 1-Gln 208, with an C-terminal His & Avi
Calculated MW	25.1 kDa
Observed MW	46 kDa
Accession	P08637-1
Bio-activity	Using the Octet RED System, the affinity constant (Kd) of CD16a bound to Human IgG1 was 30nM.

Properties

Purity	> 95 % as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU per µg of the protein as determined by the LAL method.
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80 °C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from sterile PBS, pH 7.2 Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
Reconstitution	Please refer to the printed manual for detailed information.

Data



> 95 % as determined by reducing SDS-PAGE.

Background

For Research Use Only

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Rev. V3.5

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.