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

Catalog Number: PKSH030282

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

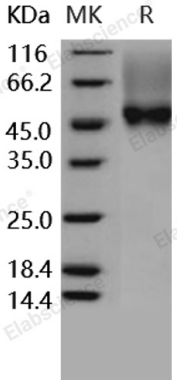
Description

Species	Human
Source	HEK293 Cells-derived Human CD16a/FCGR3A(176 Val) protein Met 1-Gln 208, with an C-terminal His & Avi
Calculated MW	25.6 kDa
Observed MW	48 kDa
Accession	P08637-1
Bio-activity	Immobilized Biotinylated Human FcγRIIIA / CD16a (V176) recombinant protein (His &Avi Tag) (PKSH030282) at 10 μg/mL can bind recombinant human IgG1 (Fc) (PKSH031469) with a linear range of 0.31-5.0 μg/mL.

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 ℃. Reconstituted protein solution can be stored at 4-8℃ for 2-7 days. Aliquots of reconstituted samples are stable at < -20℃ for 3 months.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from sterile PBS, pH 7.4 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



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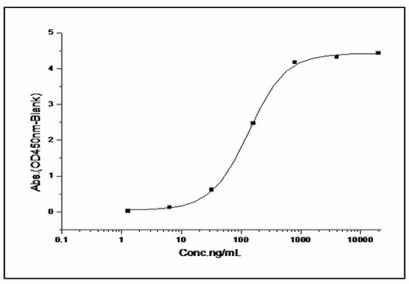

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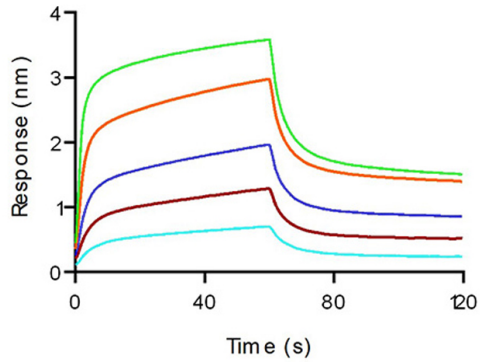
Toll-free: 1-888-852-8623
Tel: 1-832-243-6086
Fax: 1-832-243-6017
Web:www.elabscience.com
Email:techsupport@elabscience.com



Loaded Recombinant Human CD16a/FCGR3A Protein(V176,His&AVI Tag),Biotinylated (PKSH030282) on SA Biosensor, can bind anti-VEGFA(Research grade Bevacizumab Biosimilar) with an affinity constant of 1.5 μM as determined in BLI assay (Sartorius Octet RED384).

Background

The Fc receptor with low affinity for IgG (FCGR3, or CD16) is encoded by 2 nearly identical genes, FCGR3A and FCGR3 B, resulting in tissue-specific expression of alternative membrane-anchored isoforms. FCGR3A, it is also known as CD16 a, 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.

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