Datasheet for ABIN7536876

FCGR3B Protein (AA 17-200) (His-Avi Tag,Biotin)

3 Images

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Overview

Quantity:	250 µg
Target:	FCGR3B
Protein Characteristics:	AA 17-200
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This FCGR3B protein is labelled with His-Avi Tag,Biotin.
Application:	SDS-PAGE (SDS), Surface Plasmon Resonance (SPR), Size-exclusion chromatography-High Pressure Liquid Chromatography (SEC-HPLC)

Product Details

Purpose:	Biotinylated human Fc gamma RIIIb / CD16b (NA1) protein
Sequence:	GMRTEDLPKA VVFLEPQWYR VLEKDSVTLK CQGAYSPEDN STQWFHNENL ISSQASSYFI DAATVDDSGE YRCQTNLSTL SDPVQLEVHV GWLLLQAPRW VFKEEDPIHL RCHSWKNTAL HKVTYLQNGK DRKYFHHNSD FHIPKATLKD SGSYFCRGLV GSKNVSSETV NITITQGLAV STISGGGLND IFEAQKIEWH EGGGENLYFQ SGGHHHHHHH HHH
Specificity:	IgG
Characteristics:	The sequence of the extracellular domain of human CD16b (Gly 17-Ser 200) was fused with a C-terminal tag consisting of the AVI tag, TEV protease recognition sequence and a 10-His tag. Allotype: NA1
Purification:	Nickel and SEC

Product Details

Purity:	> 95 % by SEC-HPLC
Endotoxin Level:	<1.0 EU per mg
Biological Activity Comment:	Measured by its binding affinity in a SPR assay on a Biacore 8k instrument. Human Fc gamma RIIIb / CD16b (NA1) protein, immobilized on a CM5 chip via an anti-His antibody, can bind to anti-HER2 human IgG1 (trastuzumab) with an affinity constant (KD) of 5.0 μM.

Target Details

Target:	FCGR3B
Alternative Name:	CD16b (FCGR3B Products)
Background:	CD16B, FCGR3B, FCGRIIIB, FCR3B, FCRIIIB, IGFR3B, IGFRIIIB Background: Low affinity immunoglobulin gamma Fc receptor IIIb, also known as FcγRIIIb or CD16b, is a glycosylphosphatidylinositol (GPI) anchored glycoprotein. CD16b is a member of the immunoglobulin superfamily and is expressed on exclusively on neutrophils. CD16b binds monomeric IgG with low affinity but is efficient at binding immune complexes and acts as a decoy with no known signaling mechanism. CD16b is structurally composed of two extracellular immunoglobulin domains of the C2-type that interact with the IgG Fc domain and a GPI membrane anchor with no cytoplasmic tail. The product provided only contains the extracellular portion of CD16b. CD16b has two allotypic variants, referred to as human neutrophil antigen 1 (NA1 or HNA1a) and 2 (NA2 or HNA1b). The allotypes have differing affinities to human IgG1 and IgG3 with the NA1 form capable of better ingestion of IgG1 or opsonized IgG3 particles than NA2.
Molecular Weight:	25.4 kDa
UniProt:	O75015

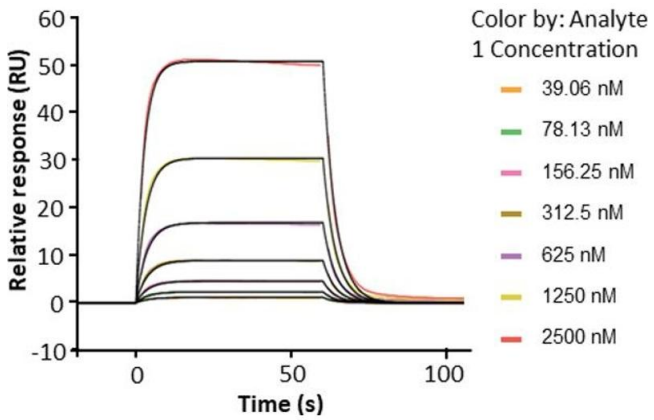
Application Details

Application Notes:	Optimal working dilution should be determined by the investigator.
Comment:	Biotin to protein ratio is confirmed as 0.7-1.0 by the HABA assay. Product has been site-specifically biotinylated using the AVI tag technology, where the lysine residue within the tag is enzymatically labeled with biotin.
Restrictions:	For Research Use only

Handling

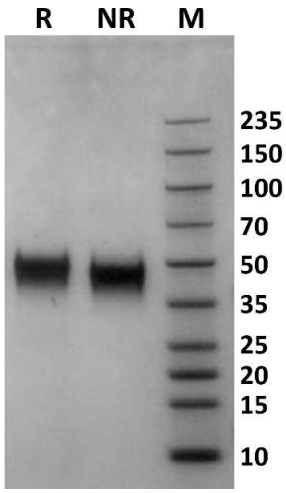
Format:	Lyophilized
Reconstitution:	To obtain a final concentration of 1 mg/mL reconstitute 250 µg vials with 250 µL water and 1.0 mg vials with 1.0 mL water. Solubilize for 30 to 60 minutes at room temperature with occasional gentle mixing. Do not vortex.
Concentration:	1 mg/mL
Buffer:	PBS pH 7.2-7.4 (140 mM NaCl, 2.7 mM KCl, 10 mM Na2HPO4, 1.8 mM KH2PO4)
Preservative:	Without preservative
Storage:	RT,4 °C,-20 °C,-80 °C
Storage Comment:	Lyophilized proteins are stable at ambient temperature for at least 2 weeks. If the protein is not to be used immediately then the protein should be stored in lyophilized form at -20 °C for up 12 months. Once the protein has been reconstituted we recommend storage at 4 °C for up to one week. For longer term storage of protein in solution we recommend aliquoting into smaller vials to avoid repeated freeze-thaw cycles and storage at -20 or -80 °C for up to 3 months. To avoid surface adsorption loss and inactivation we strongly recommend that the protein should not be aliquoted in less than 10 µg per vial.
Expiry Date:	12 months

Images



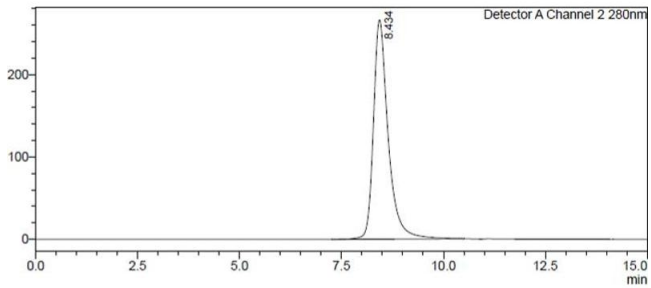
Surface Plasmon Resonance

Image 1. Assessment of binding of human Fc gamma RIIIb / CD16b (NA1), immobilized on a CM5 chip via an anti-His antibody, to anti-HER2 human IgG1 (trastuzumab) using a Biacore 8K instrument. The protein binds with an affinity constant (KD) of 5.0 µM.



SDS-PAGE

Image 2. Human Fc gamma RIIIb / CD16b (NA1) protein on Coomassie Blue stained SDS-PAGE under non-reducing (NR) and reducing (R) conditions. The purity of the protein is greater than 95 % .



Size-exclusion chromatography-High Pressure Liquid Chromatography

Image 3. Assessment of protein purity for human Fc gamma RIIIb / CD16b (NA1) protein by SEC-HPLC. The protein is greater than 95 % pure.