



Datasheet for ABIN7536877

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



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3 Images

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.
Application:	SDS-PAGE (SDS), Surface Plasmon Resonance (SPR), Size-exclusion chromatography-High Pressure Liquid Chromatography (SEC-HPLC)

Product Details

Purpose:	Human Fc gamma RIIIb / CD16b (NA2) protein
Sequence:	GMRTEDLPKA VVFLEPQWYS VLEKDSVTLK CQGAYSPEDN STQWFHNESL ISSQASSYFI DAATVNDSGE YRCQTNLSTL SDPVQLEVHI GWLLLQAPRW VFKEEDPIHL RCHSWKNTAL HKVTYLQNGK DRKYFHHNSD FHIPKATLKD SGSYFCRGLV GSKNVSETV 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: NA2
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 RIIB / CD16b (NA2) 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 4.0 μ M.

Target Details

Target:	FCGR3B
Alternative Name:	CD16b (FCGR3B Products)
Background:	<p>CD16B, FCGR3B, FCGRIIB, FCR3B, FCRIIB, IGFR3B, IGFRIB</p> <p>Background: Low affinity immunoglobulin gamma Fc receptor IIb, also known as FcγRIIB 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.</p>
Molecular Weight:	25.3 kDa
UniProt:	O75015

Application Details

Application Notes:	Optimal working dilution should be determined by the investigator.
Restrictions:	For Research Use only

Handling

Format:	Lyophilized
Reconstitution:	To obtain a final concentration of 1 mg/mL reconstitute 250 μ g vials with 250 μ L water and 1.0 mg vials with 1.0 mL water. Solubilize for 30 to 60 minutes at room temperature with

Handling

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)

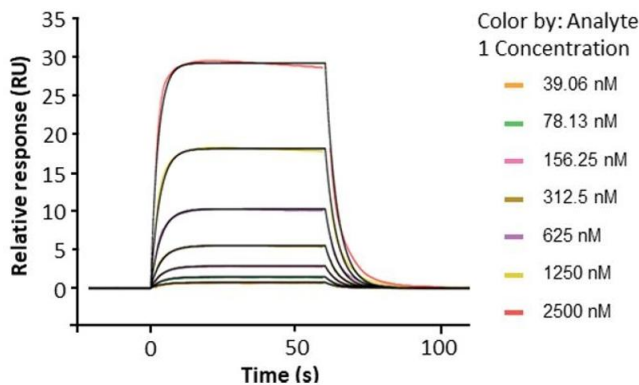
Preservative: Without preservative

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 to 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.

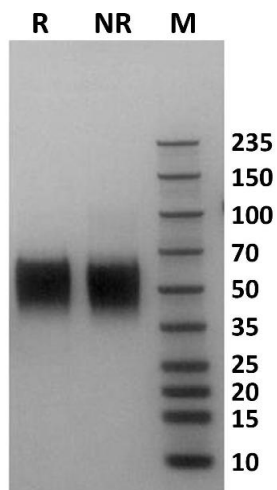
Expiry Date: 12 months

Images



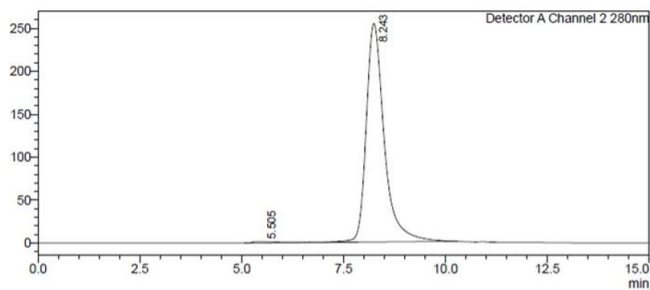
Surface Plasmon Resonance

Image 1. Assessment of binding of human Fc gamma RIIIb / CD16b (NA2), 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 4.0 µM.



SDS-PAGE

Image 2. Human Fc gamma RIIIb / CD16b (NA2) 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 (NA2) protein by SEC-HPLC. The protein is greater than 95 % pure.