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Datasheet for ABIN7536869

## FCGR2B Protein (AA 46-217) (His-Avi Tag)

### 3 Images

#### Overview

Quantity:	250 µg
Target:	FCGR2B
Protein Characteristics:	AA 46-217
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This FCGR2B 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 RIIb / CD32b protein
Sequence:	APPKAVLKLE PQWINVLQED SVTLTCRGTH SPESDSIQWF HNGNLIPTHT QPSYRFKANN NDSGEYTCQT GQTSLSDPVH LTVLSEWLVL QTPHLEFQEG ETIVLRCHSW KDKPLVKVTF FQNGKSKKFS RSDPNFSIPQ ANHSHSGDYH CTGNIGYTLY SSKPVTITVQ APGGGLNDIF EAQKIEWHEG GGENLYFQSG GHHHHHHHHH H
Specificity:	IgG
Characteristics:	The sequence of the extracellular domain of human CD32b (Ala 46-Pro 217) was fused with a C-terminal tag consisting of the AVI tag, TEV protease recognition sequence and a 10-His tag.
Purification:	Nickel and SEC
Purity:	> 95 % by SEC-HPLC

## Product Details

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Endotoxin Level: <1.0 EU per mg

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Biological Activity Comment: Measured by its binding affinity in a SPR assay on a Biacore 8k instrument. Human Fc gamma RIIb / CD32b 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 15  $\mu$ M.

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## Target Details

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Target: FCGR2B

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Alternative Name: CD32b ([FCGR2B Products](#))

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Background: CD32B, FCGR2B, FCGRIIB, FCR2B, FCRIIB, IGFR2B, IGFR1IB  
Background: Low affinity immunoglobulin gamma Fc receptor IIb, also known as Fc $\gamma$ RIIb or CD32b, is a type I integral membrane glycoprotein. CD32b is a member of the immunoglobulin superfamily and is expressed on B cells, subsets of monocytes, macrophages and granulocytes, platelets and mast cells. CD32b binds monomeric IgG with low affinity but is efficient at binding immune complexes and is a negative regulator of cell activation, proliferation, endocytosis, phagocytosis, and degranulation. CD32b is structurally composed of two extracellular immunoglobulin domains of the C2-type that interact with the IgG Fc domain, a transmembrane domain and a short cytoplasmic tail containing the immunoreceptor tyrosine-based inhibition (ITIM) motif. The product provided only contains the extracellular portion of CD32.

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Molecular Weight: 23.8 kDa

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UniProt: [P31994](#)

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Pathways: [Cellular Response to Molecule of Bacterial Origin](#), [Regulation of Leukocyte Mediated Immunity](#), [Production of Molecular Mediator of Immune Response](#), [BCR Signaling](#)

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## Application Details

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Application Notes: Optimal working dilution should be determined by the investigator.

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Restrictions: For Research Use only

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## Handling

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Format: Lyophilized

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

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## 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 Na<sub>2</sub>HPO<sub>4</sub>, 1.8 mM KH<sub>2</sub>PO<sub>4</sub>)

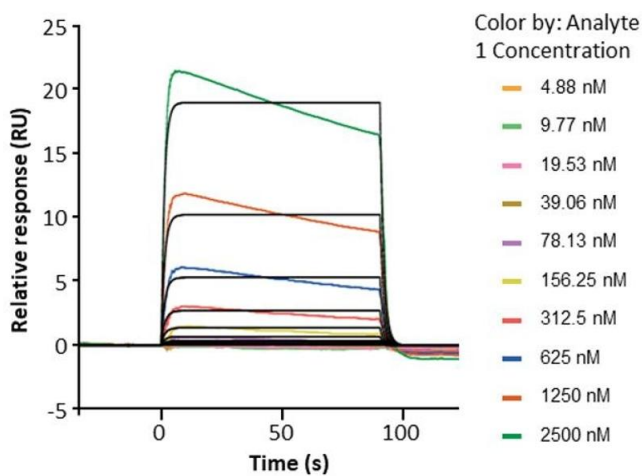
Preservative: Without preservative

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.

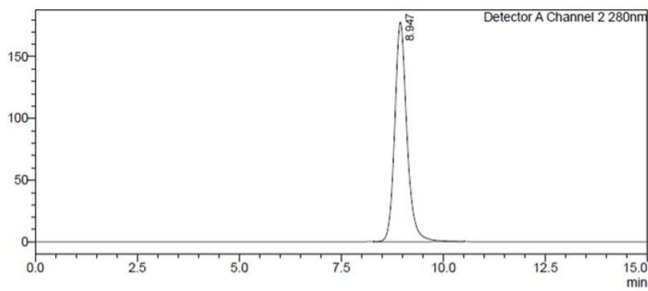
Expiry Date: 12 months

## Images



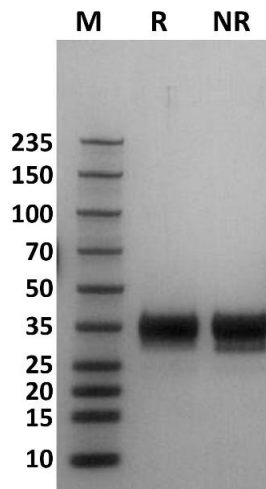
### Surface Plasmon Resonance

**Image 1.** Assessment of binding of human Fc gamma RIIb / CD32b, 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 15 µM.



### Size-exclusion chromatography-High Pressure Liquid Chromatography

**Image 2.** Assessment of protein purity for human Fc gamma RIIb / CD32b protein by SEC-HPLC. The protein is greater than 95 % pure.



### SDS-PAGE

**Image 3.** Human Fc gamma RIIb / CD32b protein on Coomassie Blue stained SDS-PAGE under non-reducing (NR) and reducing (R) conditions. The purity of the protein is greater than 95 % .