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Produktinformation



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Diagnostik & molekulare Diagnostik



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Lieferung & Zahlungsart

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Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

mail@szabo-scandic.com

www.szabo-scandic.com

[linkedin.com/company/szaboscandic](https://www.linkedin.com/company/szaboscandic) 

Product Information

Description:

This anti-FcGR3A (CD16A) antibody is a purified, biotinylated, recombinant human monoclonal antibody which recognizes the human FcGR3A/CD16A protein. Fc Gamma Receptor IIIa (FcGR3A; FcγRIIIA), also known as CD16a, is a low/intermediate affinity receptor for polyvalent immune-complexed IgG. It is involved in phagocytosis, antibody-dependent cytotoxicity, and clearance of immune complexes. FcGR3A/CD16A plays a role in the activation of natural killer (NK) cells. Clinically, it serves as a marker of certain immune cells such as neutrophils. CD16 expression has been observed at the surface of T cells in patients with chronic viral infections (such as COVID-19). It is considered a potential therapeutic target to potentiate the efficacy of therapeutic antibodies used to treat solid tumors, or as direct target in hematopoietic cancers.

This antibody has been tested for specific binding to purified human FcGR3A/CD16A (BPS Bioscience #79013) in an ELISA binding assay with colorimetric detection. It does not cross-react with purified human FcGR2B/CD16B.

Concentration:

1.73 mg/ml

Species:

Human

Isotype:

IgG1

Formulated In:

8 mM Phosphate, pH 7.4, 110 mM NaCl, 2.2 mM KCl, and 20% glycerol

Expression System:

HEK293

Clonality:

Monoclonal

Purification:

Protein A affinity chromatography

Cross Reactivity:

This antibody recognizes human FcGR3A/CD16A. It does not recognize human FcGR3B (CD16B). It has not been tested with other species.

Format:

Aqueous buffer solution

Stability:

At least 12 months at -80°C. Avoid freeze/thaw cycles.

Storage:

-80°C

MW:

~150 kDa

Purity:

≥90%

Assay Conditions:

Experimental design and assay protocol for measuring anti-FcGR3A specific binding to human FcGR3A in an ELISA assay:

1. Purified human FcGR3A/CD16A (BPS Bioscience #79013) and purified human FcGR3B/CD16B (BPS Bioscience #79016) were thawed on ice and coated onto a clear 96-well plate overnight at 4°C (2 µg/ml in PBS, 50 µl per well).
“No Coat” controls were included by coating PBS only to determine background levels
2. The next day, the plate was washed three times with 1x Immuno Buffer 1 (BPS Bioscience #79311). Plate was tapped upside down on absorbent pads to remove excess liquid.
3. Wells were then blocked with 100 µl of Blocking Buffer 2 (BPS Bioscience #79728) for 1 hour at room temperature with slow shaking.

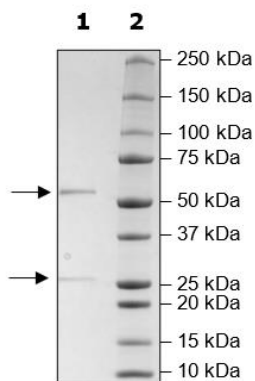
4. Serial dilutions of purified human biotin-labeled anti-FcGR3 were prepared in Blocking Buffer 2.
Titration from 0 nM to 300 nM, using 50 µl per well
5. 50 µl of the biotinylated antibody dilutions were added to the wells and incubated for 1 hour at room temperature with slow shaking.
Buffer only was added to wells designated as "BLANK"
6. Wells were washed as in step 2.
7. Streptavidin-HRP (BPS Bioscience #79742) was diluted 1/1000 in Blocking Buffer 2. 50 µl was added to each well and incubated for 30 -60 minutes at room temperature with slow shaking.
8. Wells were washed as in step 2
9. 100 µl of Colorimetric HRP Substrate (BPS Bioscience #79651) was added to all wells. Upon color development the reaction was quickly quenched with 100 µl of 1N HCl.
10. Absorbance was read at 450 nm. The "blank" value was subtracted from all other measurements.

Applications:

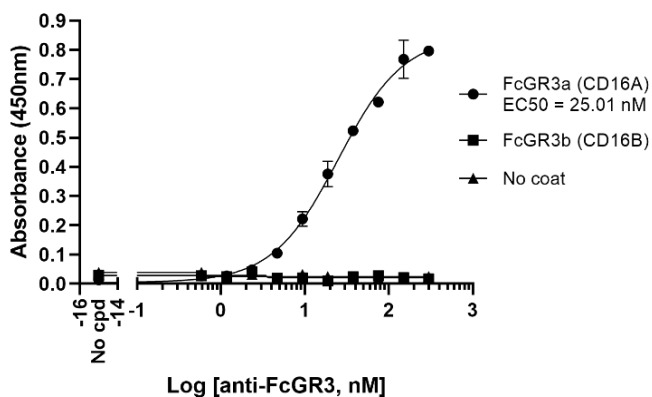
This product is for research use only. It is not suitable for human, diagnostic, or therapeutic use.

Quality Control Data

4-20% SDS-Page Coomassie Staining



Binding assay of anti-FcGR3 and human FcGR3A



This binding assay was performed following the assay conditions detailed above. The serial dilutions of antibody were prepared between 0 to 300 nM. Background value was subtracted to all other values.