abcam

ab25235

Anti-CD16+CD32 antibody [93] - BSA and Azide free

Key facts

Isotype	IgG2a
Host species	Rat
Storage buffer	Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Carrier free	Yes
Clone number	93
Purification technique	Affinity purification Protein G
Epitope	ab25235 reacts with a conformational epitope formed by CD16 Fc gamma II and CD32 Fc gamma III receptors.
Light chain type	kappa
Concentration	1 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

ICC/IF

Tested

Species	Mouse

Dilution info	10 µg/mL
Notes	-

Expected

Species	Human
Dilution info	10 µg/mL
Notes	-

Flow Cyt

Tested

Species	Mouse
Dilution info	5 µg/mL
Notes	ab18536 - Rat monoclonal IgG2b, is suitable for use as an isotype control with this antibody.

Expected

Species	Human
Dilution info	5 µg/mL
Notes	ab18536 - Rat monoclonal IgG2b, is suitable for use as an isotype control with this antibody.

FuncS (Neut/Block)

Expected

Species	Human
Dilution info	-
Notes	ab25235 can be used for blocking of Fc gamma receptors.

Species	Mouse
Dilution info	-
Notes	ab25235 can be used for blocking of Fc gamma receptors.

Target data

See full target information Fcgr3

Function	Receptor for the Fc region of complexed immunoglobulins gamma. Low affinity receptor which binds to IgG1, IgG2a and IgG2b (PubMed:17558411). Mediates neutrophil activation by IgG complexes redundantly with Fcgr4 (PubMed:18097064).

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	+4°C
Aliquoting information	Upon delivery aliquot
Storage information	Do Not Freeze

Notes

This product was changed from ascites to tissue culture supernatant on 02/08/2019. Lot numbers higher than GR3269503 are from tissue culture supernatant. Please note that the dilutions may need to be adjusted accordingly. If you have any questions, please do not hesitate to contact our scientific support team.

Want a custom formulation?

This antibody clone is manufactured by Abcam. If you require a custom buffer formulation or conjugation for your experiments, please contact orders@abcam.com

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	CD16 and CD32 also referred to as FCγRIII and FCγRII are proteins expressed on the surface of various immune cells like natural killer cells macrophages and some subsets of T cells. CD16 has a mass ranging between 50-80 kDa while CD32 exhibits variability in size between 32-40 kDa due to different isoforms. These proteins play pivotal roles in immune response by binding to the Fc region of immunoglobulins influencing cell activation and signaling.
Biological function summary	CD16 and CD32 serve important roles in mediating immune cell interactions. They work as part of immune synapses facilitating antibody-dependent cellular cytotoxicity (ADCC) and phagocytosis processes. Due to their involvement in these complex activities they are included in immunological synapse formation and

	modulation extending their influence over overall immune regulation and response. These proteins are known to contribute to both innate and adaptive immune mechanisms as receptors for the Fc portion of immunoglobulin G.
Pathways	CD16 and CD32 interact within signaling pathways like the Fc gamma receptor-mediated phagocytosis pathway and the immune response-regulating signaling pathway. These receptors work in coordination with other immunoglobulin family members to initiate targeted cellular reactions necessary for immune challenge responses. CD32 often partners with CD19 and CD21 within pathways to modulate B cell receptor-mediated signaling.
Associated diseases and disorders	CD16 and CD32 have connections to autoimmune diseases and infectious diseases. Aberrant expression or dysfunction in these proteins can contribute to the development of conditions such as systemic lupus erythematosus where improper immune complex clearance occurs and chronic inflammation results. CD16's involvement with NK cells can also play a role in viral infection control highlighting their importance in pathogen defense mechanisms.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

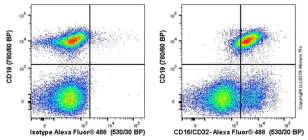
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

2 product images



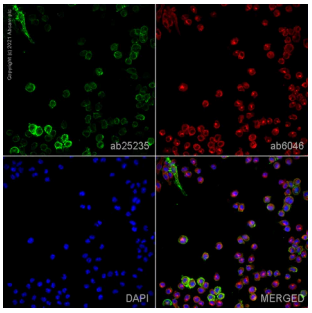
Flow Cytometry - Anti-CD16+CD32 antibody [93] - BSA and Azide free (ab25235)

CD16+CD32 Flow Cytometry staining using rat Anti-CD16+CD32 antibody

C57BL/6 mouse splenocytes stained with ab25235 (right) or Rat IgG2aκ (ab18450) isotype (left). C57BL/6 mouse splenocytes were incubated for 30 min on ice in PBS / 10 % mouse serum to block FC receptors and non-specific protein-protein interaction followed by the antibody (ab25235) or Rat IgG2aκ (ab18450) ($1x10^6$ in 100µl at 5 µg/ml) for 30 min on ice.
The secondary antibody Goat anti-rat IgG H&L (Alexa Fluor® 488, pre-adsorbed) (ab150165) was used at 1/2000 dilution for 30 min at 4°C. The cells were simultaneously stained with CD19 antibody.

Acquisition of >30,000 events were collected using a 50 mW Blue laser (488nm) and 530/30 bandpass filter. Events were gated on viable lymphocytes.

This image was generated using the ascites version of the product.



Immunocytochemistry/ Immunofluorescence - Anti-CD16+CD32 antibody [93] - BSA and Azide free (ab25235)

CD16+CD32 Immunocytochemistry/ Immunofluorescence staining using rat Anti-CD16+CD32 antibody

ab25235 staining CD16 + CD32 in Raw264.7 cells. The cells were fixed with 4% paraformaldehyde (10 min), permeabilized with 0.1% PBS-Tween for 5 minutes and then blocked with 1% BSA/10% normal goat serum/0.3M glycine in 0.1%PBS-Tween for 1h. The cells were then incubated overnight at 4°C with ab25235 at 10µg/ml and ab6046, Rabbit polyclonal to beta Tubulin - Loading Control. Cells were then incubated with ab150165, Goat polyclonal Secondary Antibody to Rat IgG - H&L (Alexa Fluor® 488), pre-adsorbed at 1/1000 dilution (shown in green) and ab150080, Goat polyclonal Secondary Antibody to Rabbit IgG - H&L (Alexa Fluor® 594) at 1/1000 dilution (shown in pseudocolour red). Nuclear DNA was labelled with DAPI (shown in blue).
Image was acquired with a high-content analyser (Operetta CLS, Perkin Elmer) and a maximum intensity projection of confocal sections is shown.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.