abcam

ab303478

Alexa Fluor® 647 Anti-CD16+CD32 antibody [EPR23501-203]

Recombinant | RabMAb

Key facts

Isotype	IgG
Host species	Rabbit
Conjugation	Alexa Fluor® 647
Excitation/Emission	Ex: 650nm, Em: 665nm
Storage buffer	pH: 7.4 Preservative: 0.02% Sodium azide Constituents: PBS, 30% Glycerol (glycerin, glycerine), 1% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Clone number	EPR23501-203
Purification technique	Affinity purification Protein A
Concentration	0.5 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IHC-P

Tested

Species	Mouse
Dilution info	1/100
Notes	-

Flow Cyt

Tested

Species	Mouse
Dilution info	1/500
Notes	-

ICC/IF

Expected

Species	Mouse
Dilution info	Use at an assay dependent concentration.
Notes	-

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 duration	1-2 weeks
Appropriate short-term storage conditions	+4°C

Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle, Store in the dark

Notes

Patented technology
Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.

What are the advantages of a recombinant monoclonal antibody?
This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility
- Improved sensitivity and specificity
- Long-term security of supply
- Animal-free batch production

For more information, read more on recombinant antibodies.

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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

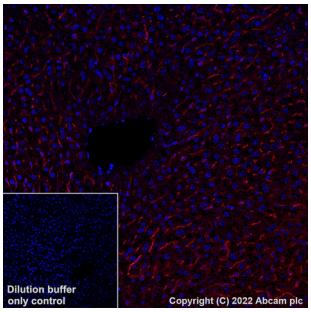
We do not recommend this combination. It is not covered by our product promise.

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.

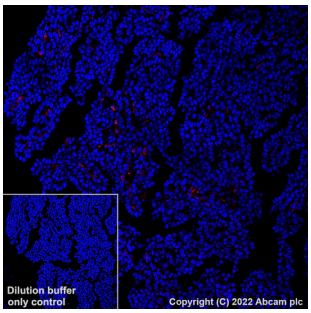
Full details and terms and conditions can be found here:
Terms & Conditions.

4 product images



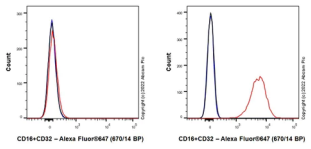
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Alexa Fluor® 647 Anti-CD16+CD32 antibody [EPR23501-203] (ab303478)

Immunohistochemical analysis of paraffin-embedded mouse liver tissue stained for CD16+CD32 using ab303478 at a 1/100 dilution (5.0 µg/ml) (Red). Positive staining on mouse liver. The section was incubated with ab303478 for 60 mins at room temperature (shown in red). Nuclear DNA was labeled with DAPI (Blue). The section was then mounted using Fluoromount®. The immunostaining was performed on a Leica Biosystems BOND RX instrument. Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8). Heat mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 40 mins.



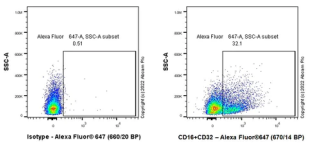
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Alexa Fluor® 647 Anti-CD16+CD32 antibody [EPR23501-203] (ab303478)

Immunohistochemical analysis of paraffin-embedded mouse lung cancer tissue stained for CD16+CD32 using ab303478 at a 1/100 dilution (5.0 µg/ml) (Red). Positive staining on mouse lung cancer. The section was incubated with ab303478 for 60 mins at room temperature (shown in red). Nuclear DNA was labeled with DAPI (Blue). The section was then mounted using Fluoromount®. The immunostaining was performed on a Leica Biosystems BOND RX instrument. Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8). Heat mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 40 mins.



Flow Cytometry - Alexa Fluor® 647 Anti-CD16+CD32 antibody [EPR23501-203] (ab303478)

Flow Cytometry analysis of bEnd.3 (Mouse brain endothelioma) (Left panel) and J774A.1 (Mouse reticulum cell sarcoma monocyte macrophage) (Right panel) using ab303478 at a 1/500 dilution (0.1 µg) (Red) compared to Rabbit IgG monoclonal [EPR25A] - Isotype Control (Alexa Fluor® 647) (ab199093) (Black) and cells without incubation with primary antibody and secondary antibody (Blue). Negative control: bEnd.3 (PMID: 23911392). Gated on viable cells.



Flow Cytometry - Alexa Fluor® 647 Anti-CD16+CD32 antibody [EPR23501-203] (ab303478)

Flow Cytometry analysis of mouse splenocytes using ab303478 at a 1/500 dilution (0.1 µg) (Right panel) compared to Rabbit IgG monoclonal [EPR25A] - Isotype Control (Alexa Fluor® 647) (ab199093) (Left panel). Gated on viable cells.

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